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PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2


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 NEWS  1          Web Page for STN Seminar Schedule - N. America
 NEWS  2  NOV 21  CAS patent coverage to include exemplified prophetic
                  substances identified in English-, French-, German-,
                  and Japanese-language basic patents from 2004-present
 NEWS  3  NOV 26  MARPAT enhanced with FSORT command
 NEWS  4  NOV 26  CHEMSAFE now available on STN Easy
 NEWS  5  NOV 26  Two new SET commands increase convenience of STN
                  searching
 NEWS  6  DEC 01  ChemPort single article sales feature unavailable
 NEWS  7  DEC 12  GBFULL now offers single source for full-text
                  coverage of complete UK patent families
 NEWS  8  DEC 17  Fifty-one pharmaceutical ingredients added to PS
 NEWS  9  JAN 06  The retention policy for unread STNmail messages
                  will change in 2009 for STN-Columbus and STN-Tokyo
 NEWS 10  JAN 07  WPIDS, WPINDEX, and WPIX enhanced Japanese Patent
                  Classification Data
 NEWS 11  FEB 02  Simultaneous left and right truncation (SLART) added
                  for CERAB, COMPUAB, ELCOM, and SOLIDSTATEM
 NEWS 12  FEB 02  GENBANK enhanced with SET PLURALS and SET SPELLING

 NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,
              AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

 NEWS HOURS    STN Operating Hours Plus Help Desk Availability
 NEWS LOGIN    Welcome Banner and News Items
 NEWS IPC8     For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that
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* * * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 09:19:08 ON 03 FEB 2009

=> file reg
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.22       0.22
```

FILE 'REGISTRY' ENTERED AT 09:19:19 ON 03 FEB 2009

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 1 FEB 2009 HIGHEST RN 1099320-21-4
DICTIONARY FILE UPDATES: 1 FEB 2009 HIGHEST RN 1099320-21-4

New CAS Information Use Policies, enter HELP USAGETERMS for details.

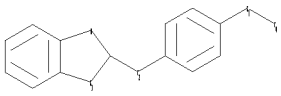
TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

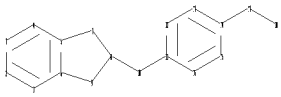
  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=>
Uploading C:\Program Files\Stnexp\Queries\10573176A.str





chain nodes :
10 17 18
ring nodes :
1 2 3 4 5 6 7 8 9 11 12 13 14 15 16
chain bonds :
8-10 10-11 14-17 17-18
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 8-9 11-12 11-16 12-13 13-14 14-15
15-16
exact/norm bonds :
5-7 6-9 7-8 8-9 8-10 10-11 14-17 17-18
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 11-12 11-16 12-13 13-14 14-15 15-16

G1:O,S,N,Se,CH2

G2:CH2,NH

G3:O,S

G4:Cb,Hy,Ph

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:CLASS
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:CLASS 18:CLASS

L1   STRUCTURE UPLOADED

=> d
L1 HAS NO ANSWERS
L1   STR
/ Structure 437 in file .gra /

Structure attributes must be viewed using STN Express query preparation.

=> s l1 sss full
FULL SEARCH INITIATED 09:20:03 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -   108626 TO ITERATE

100.0% PROCESSED   108626 ITERATIONS   352 ANSWERS
SEARCH TIME: 00.00.02

L2   352 SEA SSS FUL L1

=> file capl
COST IN U.S. DOLLARS   SINCE FILE   TOTAL
                                                       ENTRY   SESSION
FULL ESTIMATED COST   186.36   186.58

FILE 'CAPLUS' ENTERED AT 09:20:21 ON 03 FEB 2009
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 3 Feb 2009 VOL 150 ISS 6
FILE LAST UPDATED: 2 Feb 2009 (20090202/ED)

Caplus now includes complete International Patent Classification (IPC)
reclassification data for the third quarter of 2008.

CAS Information Use Policies apply and are available at:

http://www.cas.org/legal/infopolicy.html

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> file capl
COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION
FULL ESTIMATED COST | 0.07 | 187.15

FILE 'CAPLUS' ENTERED AT 09:20:38 ON 03 FEB 2009
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 3 Feb 2009 VOL 150 ISS 6
FILE LAST UPDATED: 2 Feb 2009 (20090202/ED)

Caplus now includes complete International Patent Classification (IPC)
reclassification data for the third quarter of 2008.

CAS Information Use Policies apply and are available at:

http://www.cas.org/legal/infopolicy.html

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> s l2
L3 25 L2

=> d 1-25 ibib hitstr

L3 ANSWER 1 OF 25 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2008:1508519 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 150:56153
TITLE: Benzimidazole derivatives and related compounds for inhibiting KSP kinesin activity and their preparation and use in the treatment of KSP-associated diseases
INVENTOR(S): Shipps, Gerald W., Jr.; Ma, Yao; Lahue, Brian Robert; Seghezzi, Wolfgang; Herbst, Ronald; Chuang, Cheng-Chi; Annis, D. Allen; Kirtley, Matthew
PATENT ASSIGNEE(S): Schering Corporation, USA

SOURCE: PCT Int. Appl., 319pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008153701	A1	20081218	WO 2008-US6472	20080521

W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: US 2007-939963P P 20070524

IT 1092829-76-9P 1092829-95-2P 1092830-04-0P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of benzimidazole derivs. and related compds. as KSP inhibitors useful in treatment of KSP-associated diseases)

RN 1092829-76-9 CAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 2-[(4-phenoxyphenyl)amino]-1-[[2-(trifluoromethyl)phenyl]methyl]- (CA INDEX NAME)

/ Structure 438 in file .gra /

RN 1092829-95-2 CAPLUS
CN 1H-Benzimidazole-5-carboxamide, 2-[[4-(1-piperidinylsulfonyl)phenyl]amino]-1-[[2-(trifluoromethyl)phenyl]methyl]- (CA INDEX NAME)

/ Structure 439 in file .gra /

RN 1092830-04-0 CAPLUS
CN 1H-Benzimidazole-5-carboxamide, 2-[[4-(1-azetidinylsulfonyl)phenyl]amino]-1-[[2-(trifluoromethyl)phenyl]methyl]- (CA INDEX NAME)

/ Structure 440 in file .gra /

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 25 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2008:708755 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 149:53994
TITLE: Preparation of benzimidazoles and imidazopyridines having affinity for melanocortin (MC), in particular MC4, receptors
INVENTOR(S): Poitout, Lydie; Brault, Valerie; Sackur, Carole;

Roubert, Pierre; Plas, Pascale
PATENT ASSIGNEE(S): Societe de Conseils de Recherches et d'Applications (S.C.R.A.S.), Fr.
SOURCE: U.S. Pat. Appl. Publ., 204pp., Cont.-in-part of U.S. Ser. No. 504,033.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20080139619	A1	20080612	US 2008-12184	20080131
WO 2004075823	A2	20040910	WO 2004-FR418	20040225
WO 2004075823	A3	20041007		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 20050065179	A1	20050324	US 2004-915920	20040811
US 20050267147	A1	20051201	US 2004-504033	20040928
US 7355052	B2	20080408		

PRIORITY APPLN. INFO.:

WO 2004-FR418	W	20040225
US 2004-915920	A3	20040811
US 2004-504033	A2	20040928
FR 2003-2320	A	20030226
US 2003-504033	A2	20030920

OTHER SOURCE(S): MARPAT 149:53994
IT 848577-67-3P 848577-77-5P 848578-17-6P
848578-27-8P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of benzimidazoles and imidazopyridines having affinity for melanocortin (MC), in particular MC4, receptors)
RN 848577-67-3 CAPLUS
CN 1H-Benzimidazole-6-carboxamide, N,N-bis(3-methylbutyl)-1-[3-(1-piperidinyl)propyl]-2-[[4-(1-piperidinylsulfonyl)phenyl]amino]- (CA INDEX NAME)

/ Structure 441 in file .gra /

RN 848577-77-5 CAPLUS
CN 1H-Benzimidazole-6-carboxamide, N,N-bis(3-methylbutyl)-2-[(4-phenoxyphenyl)amino]-1-[3-(1-piperidinyl)propyl]- (CA INDEX NAME)

/ Structure 442 in file .gra /

RN 848578-17-6 CAPLUS
CN 1H-Benzimidazole-6-carboxamide, N,N-bis(3-methylbutyl)-2-[(4-phenoxyphenyl)amino]-1-[3-(1-pyrrolidinyl)propyl]- (CA INDEX NAME)

/ Structure 443 in file .gra /

RN 848578-27-8 CAPLUS
CN 1H-Benzimidazole-6-carboxamide, N,N-dibutyl-2-[(4-phenoxyphenyl)amino]-1-[3-(1-piperidinyl)propyl]- (CA INDEX NAME)

/ Structure 444 in file .gra /

L3 ANSWER 3 OF 25 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2007:1308092 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 147:541859
TITLE: Preparation of phenylaminobenzoxazole as antidiabetic agents
INVENTOR(S): Defossa, Elisabeth; Follmann, Markus; Klabunde, Thomas; Drosou, Viktoria; Hessler, Gerhard; Stengelin, Siegfried; Haschke, Guido; Herling, Andreas; Bartoschek, Stefan
PATENT ASSIGNEE(S): Sanofi-Aventis, Fr.
SOURCE: Ger. Offen., 23pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 102006021878	A1	20071115	DE 2006-102006021878	20060511
AU 2007250213	A1	20071122	AU 2007-250213	20070430
WO 2007131622	A1	20071122	WO 2007-EP3806	20070430
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
KR 2009006846	A	20090115	KR 2008-727644	20081111

PRIORITY APPLN. INFO.: DE 2006-102006021878A 20060511
WO 2007-EP3806 W 20070430
OTHER SOURCE(S): MARPAT 147:541859
IT 1054311-76-0 1054312-34-3
RL: PRPH (Prophetic)
(Preparation of phenylaminobenzoxazole as antidiabetic agents)
RN 1054311-76-0 CAPLUS
CN 5-Benzoxazolepropanoic acid, 2-[(4-phenoxyphenyl)amino]- (CA INDEX NAME)

/ Structure 445 in file .gra /

RN 1054312-34-3 CAPLUS
CN 5-Benzoxazolepropanoic acid, 2-[[4-(1-piperidinylsulfonyl)phenyl]amino]- (CA INDEX NAME)

/ Structure 446 in file .gra /

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 4 OF 25 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2007:998153 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 147:344090
TITLE: Preparation of multi-cyclic compounds useful in treatment of oncol. diseases related to kinase activity
INVENTOR(S): Cee, Victor J.; Deak, Holly L.; Geuns-Meyer, Stephanie D.; Hodous, Brian L.; Nguyen, Hanh Nho; Olivieri, Philip R.; Patel, Vinod F.; Romero, Karina
PATENT ASSIGNEE(S): Amgen Inc., USA
SOURCE: PCT Int. Appl., 104pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007100646	A1	20070907	WO 2007-US4700	20070222
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
US 20070213325	A1	20070913	US 2007-709994	20070221
AU 2007221294	A1	20070907	AU 2007-221294	20070222
CA 2643177	A1	20070907	CA 2007-2643177	20070222
EP 1994030	A1	20081126	EP 2007-751460	20070222
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, RS				

PRIORITY APPLN. INFO.:

US 2006-776507P	P	20060224
US 2007-709994	A	20070221
WO 2007-US4700	W	20070222

OTHER SOURCE(S): CASREACT 147:344090; MARPAT 147:344090
IT 948562-79-6P 948562-83-2P 948562-84-3P
948562-85-4P 948562-87-6P 948562-88-7P
948562-89-8P 948562-90-1P 948562-91-2P
948562-92-3P 948562-93-4P 948562-94-5P
948562-95-6P 948562-96-7P 948562-97-8P
948562-98-9P 948562-99-0P 948563-00-6P
948563-01-7P 948563-02-8P 948563-05-1P
948563-06-2P 948563-07-3P 948563-09-5P
948563-10-8P 948563-12-0P 948563-14-2P
948563-18-6P 948563-20-0P 948563-22-2P
948563-24-4P 948563-26-6P 948563-28-8P
948563-30-2P 948563-32-4P 948563-34-6P
948563-36-8P 948563-38-0P 948563-40-4P

948563-42-6P 948563-44-8P 948563-46-0P
948563-50-6P 948563-52-8P 948563-53-9P
948563-54-0P 948563-55-1P 948563-56-2P
948563-57-3P 948563-58-4P 948563-59-5P
948563-60-8P 948563-61-9P 948563-62-0P
948563-63-1P 948563-64-2P 948563-65-3P
948563-66-4P 948563-67-5P 948563-68-6P
948563-69-7P 948563-70-0P 948563-71-1P
948563-72-2P 948563-73-3P 948563-74-4P
948563-75-5P 948563-76-6P 948563-77-7P
948563-78-8P 948563-79-9P 948563-80-2P
948563-81-3P 948563-82-4P 948563-83-5P
948563-84-6P 948563-86-8P 948563-88-0P
948563-90-4P 948563-92-6P 948563-93-7P
948563-94-8P 948563-95-9P 948563-96-0P
948563-97-1P 948563-98-2P 948563-99-3P
948564-01-0P 948564-02-1P 948564-03-2P
948564-04-3P 948564-05-4P 948564-06-5P
948564-07-6P 948564-08-7P 948564-09-8P
948564-10-1P 948564-11-2P 948564-12-3P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of novel multicyclic compds. useful in treatment of oncol. diseases related to kinase activity)

RN 948562-79-6 CAPLUS
CN 2-Benzoxazolamine, N-[3-methyl-4-[[3-(4-pyrimidinyl)-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 447 in file .gra /

RN 948562-83-2 CAPLUS
CN 1H-Benzimidazol-2-amine, 5,6-difluoro-N-[4-[[3-[2-[[3-(4-methyl-1-piperazinyl)propyl]amino]-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 448 in file .gra /

RN 948562-84-3 CAPLUS
CN 1H-Benzimidazol-2-amine, 5,6-difluoro-N-[4-[[3-[2-[[4-(4-methyl-1-piperazinyl)phenyl]amino]-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 449 in file .gra /

RN 948562-85-4 CAPLUS
CN 1H-Benzimidazol-2-amine, 5,6-difluoro-N-[4-[[3-[2-(3-pyridinylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 450 in file .gra /

RN 948562-87-6 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]-1-naphthalenyl]- (CA INDEX NAME)

/ Structure 451 in file .gra /

RN 948562-88-7 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]-1-naphthalenyl]-6-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 452 in file .gra /

RN 948562-89-8 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-[[3-[4-(methylamino)-1,3,5-triazin-2-yl]-2-pyridinyl]oxy]-1-naphthalenyl]- (CA INDEX NAME)

/ Structure 453 in file .gra /

RN 948562-90-1 CAPLUS
CN 2-Benzoxazolamine, N-[4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]-1-naphthalenyl]- (CA INDEX NAME)

/ Structure 454 in file .gra /

RN 948562-91-2 CAPLUS
CN 2-Benzothiazolamine, N-[4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]-1-naphthalenyl]- (CA INDEX NAME)

/ Structure 455 in file .gra /

RN 948562-92-3 CAPLUS
CN 1H-Benzimidazol-2-amine, 5,6-difluoro-N-[4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]-1-naphthalenyl]- (CA INDEX NAME)

/ Structure 456 in file .gra /

RN 948562-93-4 CAPLUS
CN 1H-Benzimidazol-2-amine, 7-methyl-N-[4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]-1-naphthalenyl]- (CA INDEX NAME)

/ Structure 457 in file .gra /

RN 948562-94-5 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-[[3-[2-[[2-(4-morpholinyl)ethyl]amino]-4-pyrimidinyl]-2-pyridinyl]oxy]-1-naphthalenyl]- (CA INDEX NAME)

/ Structure 458 in file .gra /

RN 948562-95-6 CAPLUS
CN 1H-Benzimidazol-2-amine, 6-chloro-5-fluoro-N-[4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]-1-naphthalenyl]- (CA INDEX NAME)

/ Structure 459 in file .gra /

RN 948562-96-7 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-[[3-[2-(methylthio)-4-pyrimidinyl]-2-pyridinyl]oxy]-1-naphthalenyl]- (CA INDEX NAME)

/ Structure 460 in file .gra /

RN 948562-97-8 CAPLUS
CN 1,2-Ethanediamine, N2-[4-[2-[[4-(1H-benzimidazol-2-ylamino)-1-naphthalenyl]oxy]-3-pyridinyl]-2-pyrimidinyl]-N1,N1-dimethyl- (CA INDEX NAME)

/ Structure 461 in file .gra /

RN 948562-98-9 CAPLUS
CN 1,3-Propanediamine, N3-[4-[2-[[4-(1H-benzimidazol-2-ylamino)-1-naphthalenyl]oxy]-3-pyridinyl]-2-pyrimidinyl]-N1,N1-dimethyl- (CA INDEX NAME)

/ Structure 462 in file .gra /

RN 948562-99-0 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-[[3-[2-(methylsulfonyl)-4-pyrimidinyl]-2-pyridinyl]oxy]-1-naphthalenyl]- (CA INDEX NAME)

/ Structure 463 in file .gra /

RN 948563-00-6 CAPLUS
CN 1H-Benzimidazol-2-amine, 5,7-difluoro-N-[4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]-1-naphthalenyl]- (CA INDEX NAME)

/ Structure 464 in file .gra /

RN 948563-01-7 CAPLUS
CN 1,4-Butanediamine, N4-[4-[2-[[4-(1H-benzimidazol-2-ylamino)-1-naphthalenyl]oxy]-3-pyridinyl]-2-pyrimidinyl]-N1,N1-dimethyl- (CA INDEX NAME)

/ Structure 465 in file .gra /

RN 948563-02-8 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]-1-naphthalenyl]-5,7-bis(trifluoromethyl)- (CA INDEX NAME)

/ Structure 466 in file .gra /

RN 948563-05-1 CAPLUS
CN 1H-Benzimidazole-1-propanamine, N,N-dimethyl-2-[[4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]-1-naphthalenyl]amino]- (CA INDEX NAME)

/ Structure 467 in file .gra /

RN 948563-06-2 CAPLUS
CN 1H-Benzimidazole-1-ethanamine, N,N-dimethyl-2-[[4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]-1-naphthalenyl]amino]- (CA INDEX NAME)

/ Structure 468 in file .gra /

RN 948563-07-3 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-[[3-[2-[[3-(1-pyrrolidinyl)propyl]amino]-4-pyrimidinyl]-2-pyridinyl]oxy]-1-naphthalenyl]- (CA INDEX NAME)

/ Structure 469 in file .gra /

RN 948563-09-5 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[3-methyl-4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]-1-naphthalenyl]- (CA INDEX NAME)

/ Structure 470 in file .gra /

RN 948563-10-8 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[3,5-dichloro-4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 471 in file .gra /

RN 948563-12-0 CAPLUS
CN 5-Quinolinamine, N-1H-benzimidazol-2-yl-8-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]- (CA INDEX NAME)

/ Structure 472 in file .gra /

RN 948563-14-2 CAPLUS
CN 1H-Benzimidazol-2-amine, 6,7-difluoro-N-[4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]-1-naphthalenyl]- (CA INDEX NAME)

/ Structure 473 in file .gra /

RN 948563-18-6 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-[2-[2-(methylamino)-4-pyrimidinyl]phenoxy]phenyl]- (CA INDEX NAME)

/ Structure 474 in file .gra /

RN 948563-20-0 CAPLUS
CN 1H-Benzimidazol-2-amine, 6,7-difluoro-N-[4-[2-[2-(methylamino)-4-pyrimidinyl]phenoxy]phenyl]- (CA INDEX NAME)

/ Structure 475 in file .gra /

RN 948563-22-2 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-[[2'-(methylamino)[3,4'-bipyridin]-2-yl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 476 in file .gra /

RN 948563-24-4 CAPLUS
CN 1H-Benzimidazol-2-amine, 6,7-difluoro-N-[4-[[2'-(methylamino)[3,4'-bipyridin]-2-yl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 477 in file .gra /

RN 948563-26-6 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-[[3-(2-amino-4-pyrimidinyl)-2-pyridinyl]oxy]-3-methyl-1-naphthalenyl]- (CA INDEX NAME)

/ Structure 478 in file .gra /

RN 948563-28-8 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-[[3-[2-[[2-(1-methyl-2-pyrrolidinyl)ethyl]amino]-4-pyrimidinyl]-2-pyridinyl]oxy]-1-naphthalenyl]- (CA INDEX NAME)

/ Structure 479 in file .gra /

RN 948563-30-2 CAPLUS
CN 2-Benzoxazolamine, 5,7-dimethyl-N-[3-methyl-4-[[3-(4-pyrimidinyl)-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 480 in file .gra /

RN 948563-32-4 CAPLUS
CN 2-Benzoxazolamine, 6-methyl-N-[3-methyl-4-[[3-(4-pyrimidinyl)-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 481 in file .gra /

RN 948563-34-6 CAPLUS
CN 2-Benzoxazolamine, 5-methyl-N-[3-methyl-4-[[3-(4-pyrimidinyl)-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 482 in file .gra /

RN 948563-36-8 CAPLUS
CN 2-Benzoxazolamine, 4-methyl-N-[3-methyl-4-[[3-(4-pyrimidinyl)-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 483 in file .gra /

RN 948563-38-0 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-[[3-[2-[[(1-ethyl-4-piperidinyl)methyl]amino]-4-pyrimidinyl]-2-pyridinyl]oxy]-1-naphthalenyl]- (CA INDEX NAME)

/ Structure 484 in file .gra /

RN 948563-40-4 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-[[3-[2-[(1-methyl-4-piperidinyl)amino]-4-pyrimidinyl]-2-pyridinyl]oxy]-1-naphthalenyl]- (CA INDEX NAME)

/ Structure 485 in file .gra /

RN 948563-42-6 CAPLUS
CN 1H-Benzimidazol-2-amine, 6,7-difluoro-N-[4-[[3-(1H-pyrazol-4-yl)-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 486 in file .gra /

RN 948563-44-8 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-[[3-(1H-pyrazol-4-yl)-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 487 in file .gra /

RN 948563-46-0 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-[[3-(2-amino-4-pyrimidinyl)-2-pyridinyl]oxy]phenyl]-6,7-difluoro- (CA INDEX NAME)

/ Structure 488 in file .gra /

RN 948563-50-6 CAPLUS
CN 2-Benzoxazolamine, N-[4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 489 in file .gra /

RN 948563-52-8 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 490 in file .gra /

RN 948563-53-9 CAPLUS
CN 2-Benzoxazolamine, N-[3-methyl-4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 491 in file .gra /

RN 948563-54-0 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[3-methyl-4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 492 in file .gra /

RN 948563-55-1 CAPLUS
CN 2-Benzothiazolamine, N-[4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 493 in file .gra /

RN 948563-56-2 CAPLUS
CN 1H-Benzimidazol-2-amine, 6-methyl-N-[4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 494 in file .gra /

RN 948563-57-3 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]-6-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 495 in file .gra /

RN 948563-58-4 CAPLUS
CN 1H-Benzimidazol-2-amine, 6-methyl-N-[3-methyl-4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 496 in file .gra /

RN 948563-59-5 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[3-methyl-4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]-6-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 497 in file .gra /

RN 948563-60-8 CAPLUS
CN 1H-Benzimidazol-2-amine, 1-methyl-N-[3-methyl-4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 498 in file .gra /

RN 948563-61-9 CAPLUS
CN 1H-Benzimidazol-2-amine, 1-methyl-N-[4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 499 in file .gra /

RN 948563-62-0 CAPLUS
CN 1H-Benzimidazol-2-amine, 1-methyl-N-[4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 500 in file .gra /

RN 948563-63-1 CAPLUS
CN 1H-Benzimidazol-2-amine, 5,6-difluoro-N-[4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 501 in file .gra /

RN 948563-64-2 CAPLUS
CN 1H-Benzimidazol-2-amine, 6-(1,1-dimethylethyl)-N-[4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 502 in file .gra /

RN 948563-65-3 CAPLUS
CN 1H-Benzimidazol-2-amine, 6-chloro-5-fluoro-N-[4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 503 in file .gra /

RN 948563-66-4 CAPLUS
CN 1H-Benzimidazol-2-amine, 7-methyl-N-[4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 504 in file .gra /

RN 948563-67-5 CAPLUS
CN 1H-Benzimidazol-2-amine, 6-fluoro-N-[4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 505 in file .gra /

RN 948563-68-6 CAPLUS
CN 1H-Benzimidazol-2-amine, 7-methyl-N-[3-methyl-4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 506 in file .gra /

RN 948563-69-7 CAPLUS
CN 1H-Benzimidazol-2-amine, 6-fluoro-N-[3-methyl-4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 507 in file .gra /

RN 948563-70-0 CAPLUS
CN 1H-Benzimidazol-2-amine, 5,6-difluoro-N-[3-methyl-4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 508 in file .gra /

RN 948563-71-1 CAPLUS
CN 1H-Benzimidazol-2-amine, 6-chloro-5-fluoro-N-[3-methyl-4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 509 in file .gra /

RN 948563-72-2 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[2-methyl-4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 510 in file .gra /

RN 948563-73-3 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[2,3-dimethyl-4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 511 in file .gra /

RN 948563-74-4 CAPLUS

CN 1H-Benzimidazol-2-amine, 5,6-dimethyl-N-[4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 512 in file .gra /

RN 948563-75-5 CAPLUS
CN 1H-Benzimidazol-2-amine, 5,7-difluoro-N-[4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 513 in file .gra /

RN 948563-76-6 CAPLUS
CN 1H-Benzimidazol-2-amine, 6,7-dimethyl-N-[4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 514 in file .gra /

RN 948563-77-7 CAPLUS
CN 1H-Benzimidazol-2-amine, 6-fluoro-N-[4-[[3-[2-[[3-(4-morpholinyl)propyl]amino]-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 515 in file .gra /

RN 948563-78-8 CAPLUS
CN 1H-Benzimidazol-2-amine, 5,6-dichloro-N-[4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 516 in file .gra /

RN 948563-79-9 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]-5,7-bis(trifluoromethyl)- (CA INDEX NAME)

/ Structure 517 in file .gra /

RN 948563-80-2 CAPLUS
CN 1H-Benzimidazol-2-amine, 6-chloro-5-methyl-N-[4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 518 in file .gra /

RN 948563-81-3 CAPLUS
CN 1H-Benzimidazol-2-amine, 6-fluoro-N-[4-[[3-[2-[[4-(4-methyl-1-piperazinyl)phenyl]amino]-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 519 in file .gra /

RN 948563-82-4 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]-6-(4-methyl-1-piperazinyl)- (CA INDEX NAME)

/ Structure 520 in file .gra /

RN 948563-83-5 CAPLUS
CN 1,3-Propanediamine, N3-[4-[2-[4-[(5,6-difluoro-1H-benzimidazol-2-yl)amino]phenoxy]-3-pyridinyl]-2-pyrimidinyl]-N1,N1-dimethyl- (CA INDEX NAME)

/ Structure 521 in file .gra /

RN 948563-84-6 CAPLUS
CN 1H-Benzimidazol-2-amine, 6,7-difluoro-N-[4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 522 in file .gra /

RN 948563-86-8 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-[[3-[2-[[3-(1-piperidinyl)propyl]amino]-4-pyrimidinyl]-2-pyridinyl]oxy]-1-naphthalenyl]- (CA INDEX NAME)

/ Structure 523 in file .gra /

RN 948563-88-0 CAPLUS
CN 1,3-Propanediamine, N3-[4-[2-[[4-(1H-benzimidazol-2-ylamino)-1-naphthalenyl]oxy]-3-pyridinyl]-2-pyrimidinyl]-N1,N1,2,2-tetramethyl- (CA INDEX NAME)

/ Structure 524 in file .gra /

RN 948563-90-4 CAPLUS
CN 1H-Benzimidazol-2-amine, 5,6-difluoro-N-[4-[[3-(1H-pyrrolo[2,3-b]pyridin-4-yl)-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 525 in file .gra /

RN 948563-92-6 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-[[3-[2-[[3-(1H-1,2,3-triazol-1-yl)propyl]amino]-4-pyrimidinyl]-2-pyridinyl]oxy]-1-naphthalenyl]- (CA INDEX NAME)

/ Structure 526 in file .gra /

RN 948563-93-7 CAPLUS
CN 1H-Benzimidazol-2-amine, 5,6-difluoro-N-[4-[[3-[2-[[3-(4-thiomorpholinyl)propyl]amino]-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 527 in file .gra /

RN 948563-94-8 CAPLUS
CN 1,4-Butanediamine, N4-[4-[2-[4-[(5,6-difluoro-1H-benzimidazol-2-yl)amino]phenoxy]-3-pyridinyl]-2-pyrimidinyl]-N1,N1-dimethyl- (CA INDEX NAME)

/ Structure 528 in file .gra /

RN 948563-95-9 CAPLUS
CN Ethanol, 2,2'-[[3-[[4-[2-[4-[(5,6-difluoro-1H-benzimidazol-2-yl)amino]phenoxy]-3-pyridinyl]-2-pyrimidinyl]amino]propyl]imino]bis- (CA INDEX NAME)

/ Structure 529 in file .gra /

RN 948563-96-0 CAPLUS
CN 1,5-Pentanediamine, N5-[4-[2-[4-[(5,6-difluoro-1H-benzimidazol-2-yl)amino]phenoxy]-3-pyridinyl]-2-pyrimidinyl]-N1,N1-dimethyl- (CA INDEX NAME)

/ Structure 530 in file .gra /

RN 948563-97-1 CAPLUS
CN 1,6-Hexanediamine, N6-[4-[2-[4-[(5,6-difluoro-1H-benzimidazol-2-yl)amino]phenoxy]-3-pyridinyl]-2-pyrimidinyl]-N1,N1-dimethyl- (CA INDEX NAME)

/ Structure 531 in file .gra /

RN 948563-98-2 CAPLUS
CN 1H-Benzimidazol-2-amine, 5,6-difluoro-N-[4-[[3-[2-[[3-(4-morpholinyl)propyl]amino]-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 532 in file .gra /

RN 948563-99-3 CAPLUS
CN 1H-Benzimidazol-2-amine, 5,6,7-trifluoro-N-[4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 533 in file .gra /

RN 948564-01-0 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-[[3-(1H-pyrrolo[2,3-b]pyridin-4-yl)-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 534 in file .gra /

RN 948564-02-1 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]thio]phenyl]- (CA INDEX NAME)

/ Structure 535 in file .gra /

RN 948564-03-2 CAPLUS
CN 1H-Benzimidazol-2-amine, 6,7-difluoro-N-[4-[[3-(1H-pyrrolo[2,3-b]pyridin-4-yl)-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 536 in file .gra /

RN 948564-04-3 CAPLUS
CN 1H-Benzimidazol-2-amine, 6,7-difluoro-N-[4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]thio]phenyl]- (CA INDEX NAME)

/ Structure 537 in file .gra /

RN 948564-05-4 CAPLUS
CN 1H-Benzimidazol-2-amine, 6,7-difluoro-N-[4-[[3-[2-[[4-(4-methyl-1-piperazinyl)phenyl]amino]-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 538 in file .gra /

RN 948564-06-5 CAPLUS
CN 1H-Benzimidazol-2-amine, 6,7-difluoro-N-[3-methoxy-4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 539 in file .gra /

RN 948564-07-6 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[3-methoxy-4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 540 in file .gra /

RN 948564-08-7 CAPLUS
CN 1H-Benzimidazol-2-amine, 6,7-difluoro-N-[3-methyl-4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 541 in file .gra /

RN 948564-09-8 CAPLUS
CN 1H-Benzimidazol-2-amine, 4,5,6,7-tetrafluoro-N-[4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 542 in file .gra /

RN 948564-10-1 CAPLUS
CN 1H-Benzimidazol-2-amine, 6,7-difluoro-N-[2-fluoro-4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 543 in file .gra /

RN 948564-11-2 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]-1-phenyl- (CA INDEX NAME)

/ Structure 544 in file .gra /

RN 948564-12-3 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[3-chloro-4-[[3-[2-(methylamino)-4-pyrimidinyl]-

2-pyridinyl]oxy]phenyl]-6,7-difluoro- (CA INDEX NAME)

/ Structure 545 in file .gra /

IT 948564-23-6P 948564-24-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of novel multicyclic compds. useful in treatment of oncol. diseases related to kinase activity)
RN 948564-23-6 CAPLUS
CN 1H-Benzimidazol-2-amine, 5,6-difluoro-N-[4-[[3-[2-(methylthio)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 546 in file .gra /

RN 948564-24-7 CAPLUS
CN 1H-Benzimidazol-2-amine, 5,6-difluoro-N-[4-[[3-[2-(methylsulfonyl)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]- (CA INDEX NAME)

/ Structure 547 in file .gra /

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 5 OF 25 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2007:810144 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 147:314176
TITLE: Identification of a novel series of benzimidazoles as potent and selective antagonists of the human melanocortin-4 receptor
AUTHOR(S): Poitout, Lydie; Brault, Valerie; Sackur, Carole; Bernetiere, Sonia; Camara, Jose; Plas, Pascale; Roubert, Pierre
CORPORATE SOURCE: Department of Medicinal Chemistry, Ipsen Research Laboratories, Institut Henri Beaufour, Les Ulis, 91966, Fr.
SOURCE: Bioorganic & Medicinal Chemistry Letters (2007), 17(16), 4464-4470
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 147:314176
IT 848577-77-5P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(benzimidazoles as antagonists of human melanocortin-4 receptor)
RN 848577-77-5 CAPLUS
CN 1H-Benzimidazole-6-carboxamide, N,N-bis(3-methylbutyl)-2-[(4-phenoxyphenyl)amino]-1-[3-(1-piperidinyl)propyl]- (CA INDEX NAME)

/ Structure 548 in file .gra /

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 6 OF 25 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2007:32905 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 146:142671
TITLE: Preparation of pyrimidine-substituted benzimidazole derivatives as protein kinase inhibitors
INVENTOR(S): Zhang, Guobao; Ren, Pingda; Wang, Xia; Gray, Nathanael S.; Sim, Taebo
PATENT ASSIGNEE(S): Irm LLC, Bermuda
SOURCE: PCT Int. Appl., 83pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2007005673	A1	20070111	WO 2006-US25706		20060630
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW					
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
AU 2006265840	A1	20070111	AU 2006-265840		20060630
CA 2614148	A1	20070111	CA 2006-2614148		20060630
EP 1899329	A1	20080319	EP 2006-774386		20060630
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR					
JP 2009500348	T	20090108	JP 2008-519635		20060630
US 20080255112	A1	20081016	US 2007-915148		20071120
IN 2007DN09142	A	20080118	IN 2007-DN9142		20071127
MX 200716066	A	20080310	MX 2007-16066		20071214
KR 2008015475	A	20080219	KR 2007-730728		20071228
CN 101213192	A	20080702	CN 2006-80024227		20080102
PRIORITY APPLN. INFO.:			US 2005-696174P	P	20050701
			WO 2006-US25706	W	20060630

OTHER SOURCE(S): MARPAT 146:142671
IT 919084-14-3P, (4-Phenoxyphenyl)[1-(pyrimidin-4-yl)-1H-benzimidazol-2-yl]amine 919084-19-8P, [1-(6-Aminopyrimidin-4-yl)-1H-benzimidazol-2-yl](4-phenoxyphenyl)amine
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of pyrimidine-substituted benzimidazole derivs. as protein kinase inhibitors)
RN 919084-14-3 CAPLUS
CN 1H-Benzimidazol-2-amine, N-(4-phenoxyphenyl)-1-(4-pyrimidinyl)- (CA INDEX NAME)

/ Structure 549 in file .gra /

RN 919084-19-8 CAPLUS
CN 1H-Benzimidazol-2-amine, 1-(6-amino-4-pyrimidinyl)-N-(4-phenoxyphenyl)-

(CA INDEX NAME)

/ Structure 550 in file .gra /

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 7 OF 25 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:409508 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 142:463726
TITLE: Preparation of benzimidazolyls as TIE-2 tyrosine kinase inhibitors for the treatment of tumors
INVENTOR(S): Staehle, Wolfgang; Buchstaller, Hans-Peter; Jonczyk, Alfred; Rautenberg, Wilfried
PATENT ASSIGNEE(S): Merck Patent G.m.b.H., Germany
SOURCE: PCT Int. Appl., 105 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005042520	A1	20050512	WO 2004-EP11550	20041014
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10349587	A1	20050525	DE 2003-10349587	20031024
AU 2004285643	A1	20050512	AU 2004-285643	20041014
CA 2543346	A1	20050512	CA 2004-2543346	20041014
EP 1675849	A1	20060705	EP 2004-765962	20041014
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
CN 1871232	A	20061129	CN 2004-80031334	20041014
BR 2004015760	A	20061219	BR 2004-15760	20041014
JP 2007509096	T	20070412	JP 2006-536006	20041014
MX 2006004405	A	20060614	MX 2006-4405	20060420
KR 2006123124	A	20061201	KR 2006-707939	20060424
US 20070066660	A1	20070322	US 2006-577033	20060424
US 7470702	B2	20081230		
IN 2006KN01239	A	20070427	IN 2006-KN1239	20060511

PRIORITY APPLN. INFO.: DE 2003-10349587 A 20031024
WO 2004-EP11550 W 20041014

OTHER SOURCE(S): MARPAT 142:463726
IT 851677-12-8P, (5-Chloro-6-trifluoromethyl-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine 851677-13-9P, [4-(Pyridin-4-yloxy)phenyl](6-trifluoromethyl-1H-benzimidazol-2-yl)amine 851677-14-0P, (6-Methyl-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine 851677-15-1P, (5-Chloro-4-methyl-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine 851677-16-2P, (4-Bromo-6-trifluoromethyl-1H-benzimidazol-2-yl)[4-

(pyridin-4-yloxy)phenyl]amine 851677-17-3P,
(4-Bromo-6-trifluoromethyl-1H-benzimidazol-2-yl)[4-(pyridin-3-
yloxy)phenyl]amine 851677-18-4P,
(5,6-Dimethyl-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine
851677-19-5P, (5-Chloro-6-trifluoromethyl-1H-benzimidazol-2-yl)[4-
(pyridin-3-yloxy)phenyl]amine 851677-20-8P,
(5,6-Dichloro-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine
851677-21-9P, (5,6-Dichloro-1H-benzimidazol-2-yl)[4-(pyridin-3-
yloxy)phenyl]amine 851677-22-0P,
(5-Chloro-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine
851677-23-1P, (5-Chloro-1H-benzimidazol-2-yl)[4-(pyridin-3-
yloxy)phenyl]amine 851677-24-2P,
(4-Methyl-1H-benzimidazol-2-yl)[4-(pyridin-3-yloxy)phenyl]amine
851677-25-3P, (4-Chloro-6-trifluoromethyl-1H-benzimidazol-2-yl)[4-
(pyridin-4-yloxy)phenyl]amine 851677-26-4P,
(4-Chloro-6-trifluoromethyl-1H-benzimidazol-2-yl)[4-(pyridin-3-
yloxy)phenyl]amine 851677-27-5P,
(4,5-Dimethyl-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine
851677-28-6P, (5-Chloro-6-methyl-1H-benzimidazol-2-yl)[4-(pyridin-
4-yloxy)phenyl]amine 851677-29-7P,
(5-Chloro-6-methyl-1H-benzimidazol-2-yl)[4-(pyridin-3-yloxy)phenyl]amine
851677-30-0P, [4,6-Bis(trifluoromethyl)-1H-benzimidazol-2-yl][4-
(pyridin-4-yloxy)phenyl]amine 851677-31-1P,
[4,6-Bis(trifluoromethyl)-1H-benzimidazol-2-yl][4-(pyridin-3-
yloxy)phenyl]amine 851677-32-2P,
[4-(Pyridin-3-yloxy)phenyl](6-trifluoromethyl-1H-benzimidazol-2-yl)amine
851677-33-3P, (6-Methyl-1H-benzimidazol-2-yl)[4-(pyridin-3-
yloxy)phenyl]amine 851677-34-4P,
(4,5-Dimethyl-1H-benzimidazol-2-yl)[4-(pyridin-3-yloxy)phenyl]amine
851677-35-5P, (5-Chloro-4-methyl-1H-benzimidazol-2-yl)[4-(pyridin-
3-yloxy)phenyl]amine 851677-36-6P,
(4-Methyl-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine
851677-37-7P, (5,6-Dimethyl-1H-benzimidazol-2-yl)[4-(pyridin-3-
yloxy)phenyl]amine 851677-38-8P,
(4-Bromo-6-trifluoromethyl-1H-benzimidazol-2-yl)[4-(2,6-dimethylpyrimidin-
4-yloxy)phenyl]amine 851677-39-9P 851677-40-2P
851677-41-3P, [4-(2-Amino-6-methylpyrimidin-4-yloxy)phenyl](4-
bromo-6-trifluoromethyl-1H-benzimidazol-2-yl)amine 851677-42-4P,
(4-Chloro-6-trifluoromethyl-1H-benzimidazol-2-yl)[4-(2,6-dimethylpyrimidin-
4-yloxy)phenyl]amine 851677-43-5P,
[4-(2-Amino-6-methylpyrimidin-4-yloxy)phenyl](4-chloro-6-trifluoromethyl-
1H-benzimidazol-2-yl)amine 851677-44-6P,
(6-Nitro-1H-benzimidazol-2-yl)[4-(pyridin-4-yloxy)phenyl]amine
851677-45-7P, 2-[4-(Pyridin-4-yloxy)phenylamino]-3H-benzimidazole-
5-carboxlic acid methyl ester 851677-48-0P,
(4-Fluoro-6-trifluoromethyl-1H-benzimidazol-2-yl)[4-(pyridin-4-
yloxy)phenyl]amine 851677-49-1P,
[4-(2,6-Dimethylpyrimidin-4-yloxy)phenyl](4-fluoro-6-trifluoromethyl-1H-
benzimidazol-2-yl)amine 851677-50-4P,
[4-(2-Amino-6-methylpyrimidin-4-yloxy)phenyl]-(4-fluoro-6-trifluoromethyl-
1H-benzimidazol-2-yl)amine 851677-51-5P 851677-52-6P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
(Uses)
(preparation of benzimidazolyls as TIE-2 tyrosine kinase inhibitors for
treatment of tumors)

RN 851677-12-8 CAPLUS

CN 1H-Benzimidazol-2-amine, 6-chloro-N-[4-(4-pyridinyloxy)phenyl]-5-
(trifluoromethyl)- (CA INDEX NAME)

/ Structure 551 in file .gra /

RN 851677-13-9 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-(4-pyridinyloxy)phenyl]-6-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 552 in file .gra /

RN 851677-14-0 CAPLUS
CN 1H-Benzimidazol-2-amine, 6-methyl-N-[4-(4-pyridinyloxy)phenyl]- (CA INDEX NAME)

/ Structure 553 in file .gra /

RN 851677-15-1 CAPLUS
CN 1H-Benzimidazol-2-amine, 6-chloro-7-methyl-N-[4-(4-pyridinyloxy)phenyl]- (CA INDEX NAME)

/ Structure 554 in file .gra /

RN 851677-16-2 CAPLUS
CN 1H-Benzimidazol-2-amine, 7-bromo-N-[4-(4-pyridinyloxy)phenyl]-5- (trifluoromethyl)- (CA INDEX NAME)

/ Structure 555 in file .gra /

RN 851677-17-3 CAPLUS
CN 1H-Benzimidazol-2-amine, 7-bromo-N-[4-(3-pyridinyloxy)phenyl]-5- (trifluoromethyl)- (CA INDEX NAME)

/ Structure 556 in file .gra /

RN 851677-18-4 CAPLUS
CN 1H-Benzimidazol-2-amine, 5,6-dimethyl-N-[4-(4-pyridinyloxy)phenyl]- (CA INDEX NAME)

/ Structure 557 in file .gra /

RN 851677-19-5 CAPLUS
CN 1H-Benzimidazol-2-amine, 6-chloro-N-[4-(3-pyridinyloxy)phenyl]-5- (trifluoromethyl)- (CA INDEX NAME)

/ Structure 558 in file .gra /

RN 851677-20-8 CAPLUS
CN 1H-Benzimidazol-2-amine, 5,6-dichloro-N-[4-(4-pyridinyloxy)phenyl]- (CA INDEX NAME)

/ Structure 559 in file .gra /

RN 851677-21-9 CAPLUS
CN 1H-Benzimidazol-2-amine, 5,6-dichloro-N-[4-(3-pyridinyloxy)phenyl]- (CA INDEX NAME)

/ Structure 560 in file .gra /

RN 851677-22-0 CAPLUS
CN 1H-Benzimidazol-2-amine, 6-chloro-N-[4-(4-pyridinyloxy)phenyl]- (CA INDEX NAME)

/ Structure 561 in file .gra /

RN 851677-23-1 CAPLUS
CN 1H-Benzimidazol-2-amine, 6-chloro-N-[4-(3-pyridinyloxy)phenyl]- (CA INDEX NAME)

/ Structure 562 in file .gra /

RN 851677-24-2 CAPLUS
CN 1H-Benzimidazol-2-amine, 7-methyl-N-[4-(3-pyridinyloxy)phenyl]- (CA INDEX NAME)

/ Structure 563 in file .gra /

RN 851677-25-3 CAPLUS
CN 1H-Benzimidazol-2-amine, 7-chloro-N-[4-(4-pyridinyloxy)phenyl]-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 564 in file .gra /

RN 851677-26-4 CAPLUS
CN 1H-Benzimidazol-2-amine, 7-chloro-N-[4-(3-pyridinyloxy)phenyl]-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 565 in file .gra /

RN 851677-27-5 CAPLUS
CN 1H-Benzimidazol-2-amine, 6,7-dimethyl-N-[4-(4-pyridinyloxy)phenyl]- (CA INDEX NAME)

/ Structure 566 in file .gra /

RN 851677-28-6 CAPLUS
CN 1H-Benzimidazol-2-amine, 6-chloro-5-methyl-N-[4-(4-pyridinyloxy)phenyl]-(CA INDEX NAME)

/ Structure 567 in file .gra /

RN 851677-29-7 CAPLUS
CN 1H-Benzimidazol-2-amine, 6-chloro-5-methyl-N-[4-(3-pyridinyloxy)phenyl]-(CA INDEX NAME)

/ Structure 568 in file .gra /

RN 851677-30-0 CAPLUS

CN 1H-Benzimidazol-2-amine, N-[4-(4-pyridinyloxy)phenyl]-5,7-bis(trifluoromethyl)- (CA INDEX NAME)

/ Structure 569 in file .gra /

RN 851677-31-1 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-(3-pyridinyloxy)phenyl]-5,7-bis(trifluoromethyl)- (CA INDEX NAME)

/ Structure 570 in file .gra /

RN 851677-32-2 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-(3-pyridinyloxy)phenyl]-6-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 571 in file .gra /

RN 851677-33-3 CAPLUS
CN 1H-Benzimidazol-2-amine, 6-methyl-N-[4-(3-pyridinyloxy)phenyl]- (CA INDEX NAME)

/ Structure 572 in file .gra /

RN 851677-34-4 CAPLUS
CN 1H-Benzimidazol-2-amine, 6,7-dimethyl-N-[4-(3-pyridinyloxy)phenyl]- (CA INDEX NAME)

/ Structure 573 in file .gra /

RN 851677-35-5 CAPLUS
CN 1H-Benzimidazol-2-amine, 6-chloro-7-methyl-N-[4-(3-pyridinyloxy)phenyl]- (CA INDEX NAME)

/ Structure 574 in file .gra /

RN 851677-36-6 CAPLUS
CN 1H-Benzimidazol-2-amine, 7-methyl-N-[4-(4-pyridinyloxy)phenyl]- (CA INDEX NAME)

/ Structure 575 in file .gra /

RN 851677-37-7 CAPLUS
CN 1H-Benzimidazol-2-amine, 5,6-dimethyl-N-[4-(3-pyridinyloxy)phenyl]- (CA INDEX NAME)

/ Structure 576 in file .gra /

RN 851677-38-8 CAPLUS
CN 1H-Benzimidazol-2-amine, 7-bromo-N-[4-[(2,6-dimethyl-4-pyrimidinyl)oxy]phenyl]-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 577 in file .gra /

RN 851677-39-9 CAPLUS
CN 2-Pyridinecarboxamide, 4-[4-[[7-bromo-5-(trifluoromethyl)-1H-benzimidazol-2-yl]amino]phenoxy]-N-methyl- (CA INDEX NAME)

/ Structure 578 in file .gra /

RN 851677-40-2 CAPLUS
CN 1H-Benzimidazole-6-carbonitrile, 2-[[4-(4-pyridinyloxy)phenyl]amino]- (CA INDEX NAME)

/ Structure 579 in file .gra /

RN 851677-41-3 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-[(2-amino-6-methyl-4-pyrimidinyl)oxy]phenyl]-7-bromo-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 580 in file .gra /

RN 851677-42-4 CAPLUS
CN 1H-Benzimidazol-2-amine, 7-chloro-N-[4-[(2,6-dimethyl-4-pyrimidinyl)oxy]phenyl]-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 581 in file .gra /

RN 851677-43-5 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-[(2-amino-6-methyl-4-pyrimidinyl)oxy]phenyl]-7-chloro-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 582 in file .gra /

RN 851677-44-6 CAPLUS
CN 1H-Benzimidazol-2-amine, 6-nitro-N-[4-(4-pyridinyloxy)phenyl]- (CA INDEX NAME)

/ Structure 583 in file .gra /

RN 851677-45-7 CAPLUS
CN 1H-Benzimidazole-6-carboxylic acid, 2-[[4-(4-pyridinyloxy)phenyl]amino]-, methyl ester (CA INDEX NAME)

/ Structure 584 in file .gra /

RN 851677-48-0 CAPLUS
CN 1H-Benzimidazol-2-amine, 7-fluoro-N-[4-(4-pyridinyloxy)phenyl]-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 585 in file .gra /

RN 851677-49-1 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-[(2,6-dimethyl-4-pyrimidinyl)oxy]phenyl]-7-fluoro-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 586 in file .gra /

RN 851677-50-4 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-[(2-amino-6-methyl-4-pyrimidinyl)oxy]phenyl]-7-fluoro-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 587 in file .gra /

RN 851677-51-5 CAPLUS
CN 2-Pyridinecarboxamide, N-methyl-4-[4-[[6-(2-thienylcarbonyl)-1H-benzimidazol-2-yl]amino]phenoxy]- (CA INDEX NAME)

/ Structure 588 in file .gra /

RN 851677-52-6 CAPLUS
CN 1H-Benzimidazole-2,6-diamine, N2-[4-(4-pyridinyloxy)phenyl]- (CA INDEX NAME)

/ Structure 589 in file .gra /

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 8 OF 25 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:369277 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 142:430271
TITLE: Preparation of substituted benzazoles as inhibitors of raf kinase
INVENTOR(S): Ramurthy, Savithri; Subramanian, Sharadha; Verhagen, Joelle; Poon, Daniel J.; Hansen, Teresa; Shafer, Cynthia; Mcbride, Christopher; Levine, Barry H.; Costales, Abran; Renhowe, Paul A.
PATENT ASSIGNEE(S): Chiron Corporation, USA
SOURCE: PCT Int. Appl., 185 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005037273	A1	20050428	WO 2004-US34179	20041015
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004281151	A1	20050428	AU 2004-281151	20041015
CA 2542653	A1	20050428	CA 2004-2542653	20041015
US 20050192287	A1	20050901	US 2004-967089	20041015

US 7423150 B2 20080909
EP 1682126 A1 20060726 EP 2004-795357 20041015
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK
CN 1889951 A 20070103 CN 2004-80036199 20041015
JP 2007509058 T 20070412 JP 2006-535367 20041015
MX 2006004236 A 20060628 MX 2006-4236 20060417
KR 2006118472 A 20061123 KR 2006-709081 20060510
IN 2006KN01221 A 20070427 IN 2006-KN1221 20060510
PRIORITY APPLN. INFO.: US 2003-511966P P 20031016
WO 2004-US34179 W 20041015
OTHER SOURCE(S): CASREACT 142:430271; MARPAT 142:430271
IT 850713-32-5P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of substituted benzazoles as inhibitors of raf kinase)
RN 850713-32-5 CAPLUS
CN Acetamide, N-[4-[[1-methyl-2-[(4-phenoxyphenyl)amino]-1H-benzimidazol-5-yl]oxy]-2-pyridinyl]- (CA INDEX NAME)

/ Structure 590 in file .gra /

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 9 OF 25 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:345863 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 142:411345
TITLE: Preparation of 1,3-benzoxazols as TIE-2 kinase inhibitors
INVENTOR(S): Staehle, Wolfgang; Jonczyk, Alfred; Rautenberg, Wilfried
PATENT ASSIGNEE(S): Merck Patent G.m.b.H., Germany
SOURCE: Ger. Offen., 36 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10344223	A1	20050421	DE 2003-10344223	20030924
AU 2004281879	A1	20050428	AU 2004-281879	20040901
CA 2539767	A1	20050428	CA 2004-2539767	20040901
WO 2005037829	A1	20050428	WO 2004-EP9743	20040901
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1664039	A1	20060607	EP 2004-764704	20040901
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK
JP 2007506687 T 20070322 JP 2006-527292 20040901
US 20060281762 A1 20061214 US 2006-573176 20060323
PRIORITY APPLN. INFO.: DE 2003-10344223 A 20030924
WO 2004-EP9743 W 20040901
OTHER SOURCE(S): MARPAT 142:411345
IT 850258-31-0P 850258-34-3P 850258-39-8P
850258-41-2P 850258-44-5P 850258-50-3P
850258-53-6P 850258-58-1P 850258-61-6P
850258-66-1P 850258-68-3P 850258-72-9P
850258-74-1P 850258-76-3P 850258-80-9P
850258-82-1P 850258-84-3P 850258-86-5P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of benzoxazols as TIE-2 kinase inhibitors)
RN 850258-31-0 CAPLUS
CN 2-Benzoxazolamine, N-[4-(4-pyridinyloxy)phenyl]- (CA INDEX NAME)

/ Structure 591 in file .gra /

RN 850258-34-3 CAPLUS
CN 2-Benzoxazolamine, N-[4-(4-pyridinylthio)phenyl]- (CA INDEX NAME)

/ Structure 592 in file .gra /

RN 850258-39-8 CAPLUS
CN 5-Benzoxazolecarboxylic acid, 2-[[4-(4-pyridinylthio)phenyl]amino]- (CA INDEX NAME)

/ Structure 593 in file .gra /

RN 850258-41-2 CAPLUS
CN 6-Benzoxazolecarboxylic acid, 2-[[4-(4-pyridinyloxy)phenyl]amino]- (CA INDEX NAME)

/ Structure 594 in file .gra /

RN 850258-44-5 CAPLUS
CN 6-Benzoxazolecarboxylic acid, 2-[[4-(4-pyridinylthio)phenyl]amino]- (CA INDEX NAME)

/ Structure 595 in file .gra /

RN 850258-50-3 CAPLUS
CN 2-Benzoxazolamine, 5-nitro-N-[4-(4-pyridinylthio)phenyl]- (CA INDEX NAME)

/ Structure 596 in file .gra /

RN 850258-53-6 CAPLUS
CN 2-Benzoxazolamine, 5-nitro-N-[4-(4-pyridinyloxy)phenyl]- (CA INDEX NAME)

/ Structure 597 in file .gra /

RN 850258-58-1 CAPLUS
CN 2-Benzoxazolamine, 6-nitro-N-[4-(4-pyridinyloxy)phenyl]- (CA INDEX NAME)

/ Structure 598 in file .gra /

RN 850258-61-6 CAPLUS
CN 2-Benzoxazolamine, 6-nitro-N-[4-(4-pyridinylthio)phenyl]- (CA INDEX NAME)

/ Structure 599 in file .gra /

RN 850258-66-1 CAPLUS
CN 2-Benzoxazolamine, 5-chloro-7-nitro-N-[4-(4-pyridinyloxy)phenyl]- (CA INDEX NAME)

/ Structure 600 in file .gra /

RN 850258-68-3 CAPLUS
CN 2-Benzoxazolamine, 5-chloro-7-nitro-N-[4-(4-pyridinylthio)phenyl]- (CA INDEX NAME)

/ Structure 601 in file .gra /

RN 850258-72-9 CAPLUS
CN 2-Benzoxazolamine, 7-bromo-N-[4-(4-pyridinyloxy)phenyl]-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 602 in file .gra /

RN 850258-74-1 CAPLUS
CN 2-Benzoxazolamine, 7-bromo-N-[4-(4-pyridinylthio)phenyl]-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 603 in file .gra /

RN 850258-76-3 CAPLUS
CN 2-Benzoxazolamine, 7-bromo-N-[4-[(4-fluorophenyl)thio]phenyl]-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 604 in file .gra /

RN 850258-80-9 CAPLUS
CN 2-Benzoxazolamine, N-[4-[(2-amino-6-methyl-4-pyrimidinyl)oxy]phenyl]-7-bromo-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 605 in file .gra /

RN 850258-82-1 CAPLUS
CN 2-Pyridinecarboxamide, 4-[4-[[7-bromo-5-(trifluoromethyl)-2-benzoxazolyl]amino]phenoxy]-N-methyl- (CA INDEX NAME)

/ Structure 606 in file .gra /

RN 850258-84-3 CAPLUS
CN 2-Pyridinecarboxamide, 4-[[4-[[7-bromo-5-(trifluoromethyl)-2-benzoxazolyl]amino]phenyl]thio]-N-methyl- (CA INDEX NAME)

/ Structure 607 in file .gra /

RN 850258-86-5 CAPLUS
CN 2-Benzoxazolamine, 7-bromo-N-[4-[(2,4-difluorophenyl)thio]phenyl]-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 608 in file .gra /

L3 ANSWER 10 OF 25 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:259680 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 142:336356
TITLE: Preparation of benzimidazoles and imidazopyridines having affinity for melanocortin (MC), in particular MC4, receptors
INVENTOR(S): Poitout, Lydie; Brault, Valerie; Sackur, Carole; Roubert, Pierre; Plas, Pascale
PATENT ASSIGNEE(S): Fr.
SOURCE: U.S. Pat. Appl. Publ., 213 pp., Cont.-in-part of U.S. Ser. No. 504,033.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20050065179	A1	20050324	US 2004-915920	20040811
FR 2851563	A1	20040827	FR 2003-2320	20030226
FR 2851563	B1	20050422		
WO 2004075823	A2	20040910	WO 2004-FR418	20040225
WO 2004075823	A3	20041007		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 20080139619	A1	20080612	US 2008-12184	20080131

PRIORITY APPLN. INFO.:		
FR 2003-2320	A	20030226
US 2003-504033	A2	20030920
WO 2004-FR418	W	20040225
US 2004-915920	A3	20040811
US 2004-504033	A2	20040928

OTHER SOURCE(S): CASREACT 142:336356; MARPAT 142:336356
IT 848577-67-3P 848577-77-5P 848578-17-6P
848578-27-8P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of benzimidazoles and imidazopyridines having affinity for melanocortin (MC), in particular MC4, receptors)

RN 848577-67-3 CAPLUS
CN 1H-Benzimidazole-6-carboxamide, N,N-bis(3-methylbutyl)-1-[3-(1-piperidinyl)propyl]-2-[[4-(1-piperidinylsulfonyl)phenyl]amino]- (CA INDEX NAME)

/ Structure 609 in file .gra /

RN 848577-77-5 CAPLUS
CN 1H-Benzimidazole-6-carboxamide, N,N-bis(3-methylbutyl)-2-[(4-phenoxyphenyl)amino]-1-[3-(1-piperidinyl)propyl]- (CA INDEX NAME)

/ Structure 610 in file .gra /

RN 848578-17-6 CAPLUS
CN 1H-Benzimidazole-6-carboxamide, N,N-bis(3-methylbutyl)-2-[(4-phenoxyphenyl)amino]-1-[3-(1-pyrrolidinyl)propyl]- (CA INDEX NAME)

/ Structure 611 in file .gra /

RN 848578-27-8 CAPLUS
CN 1H-Benzimidazole-6-carboxamide, N,N-dibutyl-2-[(4-phenoxyphenyl)amino]-1-[3-(1-piperidinyl)propyl]- (CA INDEX NAME)

/ Structure 612 in file .gra /

L3 ANSWER 11 OF 25 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:182661 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 142:280210
TITLE: Preparation of 2-aminobenzimidazoles as TIE-2 and Raf kinase inhibitors for the treatment of tumors
INVENTOR(S): Hoelzemann, Guenter; Crassier, Helene; Ackermann, Karl-August; Staehle, Wolfgang; Jonczyk, Alfred; Rautenberg, Wilfried; Mitjans, Francesco; Rosell-Vives, Elisabet; Adan, Jaume; Soler, Marta
PATENT ASSIGNEE(S): Merck Patent GmbH, Germany
SOURCE: PCT Int. Appl., 89 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005019216	A1	20050303	WO 2004-EP8042	20040719

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

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     DE 10337942          A1    20050317    DE 2003-10337942       20030818
     AU 2004266797        A1    20050303    AU 2004-266797         20040719
     CA 2536095           A1    20050303    CA 2004-2536095        20040719
     EP 1656377           A1    20060517    EP 2004-741135         20040719
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK
     JP 2007502786        T     20070215    JP 2006-523546         20040719
     US 20070021456       A1    20070125    US 2006-568626         20060216
PRIORITY APPLN. INFO.:                      DE 2003-10337942    A  20030818
                                            WO 2004-EP8042      W  20040719

OTHER SOURCE(S):         MARPAT 142:280210
IT   847234-77-9P 847234-78-0P 847234-79-1P
     847234-80-4P 847234-81-5P 847234-82-6P
     847234-85-9P 847234-86-0P 847234-87-1P
     847234-88-2P 847234-89-3P 847234-92-8P
     847234-93-9P 847234-94-0P 847234-95-1P
     847234-96-2P 847234-97-3P 847234-98-4P
     847234-99-5P 847235-00-1P 847235-01-2P
     847235-02-3P 847235-03-4P 847235-04-5P
     847235-05-6P 847235-06-7P 847235-07-8P
     847235-08-9P 847235-09-0P 847235-11-4P
     847235-12-5P 847235-14-7P 847235-15-8P
     847235-16-9P 847235-17-0P 847235-19-2P
     847235-20-5P 847235-21-6P 847235-22-7P
     847235-25-0P 847235-26-1P 847235-27-2P
     847235-28-3P 847235-29-4P 847235-30-7P
     847235-31-8P 847235-32-9P 847235-33-0P
     847235-34-1P 847235-36-3P 847235-38-5P
     847235-39-6P 847235-40-9P 847235-42-1P
     847235-43-2P 847235-44-3P 847235-45-4P
     847235-46-5P 847235-47-6P 847235-52-3P
     847235-53-4P
     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
        (preparation of aminobenzimidazoles as TIE-2 and Raf kinase inhibitors for
        treatment of tumors)
RN   847234-77-9  CAPLUS
CN   1H-Benzimidazol-2-amine, N-[4-(2,1,3-benzothiadiazol-5-yloxy)phenyl]-7-
     bromo-5-(trifluoromethyl)-  (CA INDEX NAME)


/ Structure 613 in file .gra /

RN   847234-78-0  CAPLUS
CN   1H-Benzimidazol-2-amine, N-[4-(2,1,3-benzothiadiazol-5-yloxy)phenyl]-7-
     chloro-5-(trifluoromethyl)-  (CA INDEX NAME)


/ Structure 614 in file .gra /

RN   847234-79-1  CAPLUS
CN   1H-Benzimidazol-2-amine, N-[4-(1,3-benzodioxol-5-yloxy)phenyl]-7-chloro-5-
     (trifluoromethyl)-  (CA INDEX NAME)


/ Structure 615 in file .gra /

RN   847234-80-4  CAPLUS
CN   1H-Benzimidazol-2-amine, N-[4-(2,1,3-benzothiadiazol-4-yloxy)phenyl]-7-
     bromo-5-(trifluoromethyl)-  (CA INDEX NAME)
```

/ Structure 616 in file .gra /

RN 847234-81-5 CAPLUS
CN 1H-Benzimidazol-2-amine, 7-bromo-N-[4-(imidazo[1,2-a]quinolin-9-yloxy)phenyl]-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 617 in file .gra /

RN 847234-82-6 CAPLUS
CN 1H-Benzimidazol-2-amine, 7-chloro-N-[4-(imidazo[1,2-a]quinolin-9-yloxy)phenyl]-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 618 in file .gra /

RN 847234-85-9 CAPLUS
CN 1H-Benzimidazol-2-amine, 7-chloro-N-[4-(1H-indol-6-yloxy)phenyl]-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 619 in file .gra /

RN 847234-86-0 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-(2,1,3-benzothiadiazol-4-yloxy)phenyl]-7-chloro-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 620 in file .gra /

RN 847234-87-1 CAPLUS
CN 1H-Benzimidazol-2-amine, 7-bromo-N-[4-(1H-indol-5-yloxy)phenyl]-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 621 in file .gra /

RN 847234-88-2 CAPLUS
CN 1H-Benzimidazol-2-amine, 7-chloro-N-[4-(1H-indol-5-yloxy)phenyl]-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 622 in file .gra /

RN 847234-89-3 CAPLUS
CN 1H-Benzimidazol-2-amine, 7-bromo-N-[4-(1H-indol-6-yloxy)phenyl]-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 623 in file .gra /

RN 847234-92-8 CAPLUS
CN 1H-Benzimidazol-2-amine, 7-bromo-N-[4-[(2,3,6,7-tetrahydro-1H,5H-benzo[ij]quinolizin-8-yl)oxy]phenyl]-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 624 in file .gra /

RN 847234-93-9 CAPLUS

CN 1H-Benzimidazol-2-amine, 7-chloro-N-[4-[(2,3,6,7-tetrahydro-1H,5H-benzo[ij]quinolizin-8-yl)oxy]phenyl]-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 625 in file .gra /

RN 847234-94-0 CAPLUS
CN 1H-Indole-2-carboxylic acid, 5-[4-[[7-bromo-5-(trifluoromethyl)-1H-benzimidazol-2-yl]amino]phenoxy]-, ethyl ester (CA INDEX NAME)

/ Structure 626 in file .gra /

RN 847234-95-1 CAPLUS
CN 1H-Indole-2-carboxylic acid, 5-[4-[[7-chloro-5-(trifluoromethyl)-1H-benzimidazol-2-yl]amino]phenoxy]-, ethyl ester (CA INDEX NAME)

/ Structure 627 in file .gra /

RN 847234-96-2 CAPLUS
CN 2-Benzofurancarboxylic acid, 7-[4-[[7-bromo-5-(trifluoromethyl)-1H-benzimidazol-2-yl]amino]phenoxy]-, methyl ester (CA INDEX NAME)

/ Structure 628 in file .gra /

RN 847234-97-3 CAPLUS
CN 2-Benzofurancarboxylic acid, 7-[4-[[7-chloro-5-(trifluoromethyl)-1H-benzimidazol-2-yl]amino]phenoxy]-, methyl ester (CA INDEX NAME)

/ Structure 629 in file .gra /

RN 847234-98-4 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-(2,1,3-benzoxadiazol-5-yloxy)phenyl]-7-bromo-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 630 in file .gra /

RN 847234-99-5 CAPLUS
CN 2-Benzofurancarboxamide, 7-[4-[[7-bromo-5-(trifluoromethyl)-1H-benzimidazol-2-yl]amino]phenoxy]- (CA INDEX NAME)

/ Structure 631 in file .gra /

RN 847235-00-1 CAPLUS
CN 2-Benzofurancarboxamide, 7-[4-[[7-chloro-5-(trifluoromethyl)-1H-benzimidazol-2-yl]amino]phenoxy]- (CA INDEX NAME)

/ Structure 632 in file .gra /

RN 847235-01-2 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-(2,1,3-benzoxadiazol-5-yloxy)phenyl]-7-fluoro-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 633 in file .gra /

RN 847235-02-3 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-(2,1,3-benzothiadiazol-4-yloxy)phenyl]-7-fluoro-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 634 in file .gra /

RN 847235-03-4 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-(1,3-benzodioxol-5-yloxy)phenyl]-7-bromo-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 635 in file .gra /

RN 847235-04-5 CAPLUS
CN 1H-Benzimidazol-2-amine, 7-bromo-N-[4-[(3-methyl-3H-imidazo[4,5-c]pyridin-4-yl)thio]phenyl]-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 636 in file .gra /

RN 847235-05-6 CAPLUS
CN 1H-Benzimidazol-2-amine, 7-chloro-5-(trifluoromethyl)-N-[4-[(2,4,7-trimethyl-6-benzothiazolyl)oxy]phenyl]- (CA INDEX NAME)

/ Structure 637 in file .gra /

RN 847235-06-7 CAPLUS
CN 1H-Benzimidazol-2-amine, 7-chloro-N-[4-(imidazo[1,2-a]pyridin-8-yloxy)phenyl]-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 638 in file .gra /

RN 847235-07-8 CAPLUS
CN 1H-Benzimidazol-2-amine, 7-bromo-5-(trifluoromethyl)-N-[4-[(2,4,7-trimethyl-6-benzothiazolyl)oxy]phenyl]- (CA INDEX NAME)

/ Structure 639 in file .gra /

RN 847235-08-9 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-(2,1,3-benzothiadiazol-5-yloxy)phenyl]-7-fluoro-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 640 in file .gra /

RN 847235-09-0 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-(2,1,3-benzothiadiazol-5-yloxy)phenyl]-5,7-difluoro- (CA INDEX NAME)

/ Structure 641 in file .gra /

RN 847235-11-4 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-(2,1,3-benzothiadiazol-5-yloxy)phenyl]-6,7-difluoro- (CA INDEX NAME)

/ Structure 642 in file .gra /

RN 847235-12-5 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-(2,1,3-benzothiadiazol-5-yloxy)phenyl]-5,6-difluoro- (CA INDEX NAME)

/ Structure 643 in file .gra /

RN 847235-14-7 CAPLUS
CN 2-Benzothiazolamine, 6-[4-[[7-chloro-5-(trifluoromethyl)-1H-benzimidazol-2-yl]amino]phenoxy]- (CA INDEX NAME)

/ Structure 644 in file .gra /

RN 847235-15-8 CAPLUS
CN 1H-Benzimidazol-2-amine, 6,7-difluoro-N-[4-[(3-methyl-3H-imidazo[4,5-c]pyridin-4-yl)thio]phenyl]- (CA INDEX NAME)

/ Structure 645 in file .gra /

RN 847235-16-9 CAPLUS
CN 1H-Benzimidazol-2-amine, 7-bromo-N-[4-[(2-methyl-5-benzothiazolyl)oxy]phenyl]-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 646 in file .gra /

RN 847235-17-0 CAPLUS
CN 1H-Benzimidazol-2-amine, 7-chloro-N-[4-[(2-methyl-5-benzothiazolyl)oxy]phenyl]-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 647 in file .gra /

RN 847235-19-2 CAPLUS
CN 1H-Benzimidazol-2-amine, 7-bromo-N-[4-(imidazo[1,2-a]pyridin-8-yloxy)phenyl]-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 648 in file .gra /

RN 847235-20-5 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-[2-(2,1,3-benzothiadiazol-5-yloxy)phenoxy]phenyl]-7-chloro-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 649 in file .gra /

RN 847235-21-6 CAPLUS
CN 1H-Benzimidazol-2-amine, 7-bromo-N-[4-[(2,3-dihydro-1,4-benzodioxin-6-yl)oxy]phenyl]-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 650 in file .gra /

RN 847235-22-7 CAPLUS
CN 1H-Benzimidazol-2-amine, 7-chloro-N-[4-[(2,3-dihydro-1,4-benzodioxin-6-

yl)oxy]phenyl]-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 651 in file .gra /

RN   847235-25-0 CAPLUS
CN   1H-Benzimidazol-2-amine, 7-bromo-N-[4-[(1-methyl-1H-imidazo[4,5-c]pyridin-4-yl)thio]phenyl]-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 652 in file .gra /

RN   847235-26-1 CAPLUS
CN   1H-Benzimidazol-2-amine, N-[4-(2,1,3-benzothiadiazol-5-yloxy)-3-methylphenyl]-7-bromo-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 653 in file .gra /

RN   847235-27-2 CAPLUS
CN   1H-Benzimidazol-2-amine, N-[4-(2,1,3-benzothiadiazol-5-yloxy)-3-methylphenyl]-7-chloro-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 654 in file .gra /

RN   847235-28-3 CAPLUS
CN   1H-Benzimidazol-2-amine, N-[4-(2,1,3-benzothiadiazol-5-yloxy)-2-methylphenyl]-7-bromo-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 655 in file .gra /

RN   847235-29-4 CAPLUS
CN   1H-Benzimidazol-2-amine, N-[4-(2,1,3-benzothiadiazol-5-yloxy)-2-methylphenyl]-7-chloro-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 656 in file .gra /

RN   847235-30-7 CAPLUS
CN   1H-Benzimidazol-2-amine, 7-bromo-N-[4-[(2,3-dihydro-1,4-benzodioxin-5-yl)oxy]phenyl]-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 657 in file .gra /

RN   847235-31-8 CAPLUS
CN   1H-Benzimidazol-2-amine, 7-chloro-N-[4-[(2,3-dihydro-1,4-benzodioxin-5-yl)oxy]phenyl]-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 658 in file .gra /

RN   847235-32-9 CAPLUS
CN   1H-Benzimidazol-2-amine, N-[4-(1,3-benzodioxol-4-yloxy)phenyl]-7-bromo-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 659 in file .gra /

RN 847235-33-0 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-(1,3-benzodioxol-4-yloxy)phenyl]-7-chloro-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 660 in file .gra /

RN 847235-34-1 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-(1,3-benzodioxol-5-yloxy)phenyl]-6,7-difluoro- (CA INDEX NAME)

/ Structure 661 in file .gra /

RN 847235-36-3 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-(1,3-benzodioxol-5-yloxy)phenyl]-6-fluoro- (CA INDEX NAME)

/ Structure 662 in file .gra /

RN 847235-38-5 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-(1,3-benzodioxol-5-yloxy)phenyl]-5,7-difluoro- (CA INDEX NAME)

/ Structure 663 in file .gra /

RN 847235-39-6 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-(2,1,3-benzothiadiazol-5-yloxy)phenyl]-6-fluoro- (CA INDEX NAME)

/ Structure 664 in file .gra /

RN 847235-40-9 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-(2,1,3-benzothiadiazol-5-yloxy)phenyl]-5,6,7-trifluoro- (CA INDEX NAME)

/ Structure 665 in file .gra /

RN 847235-42-1 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-(2,1,3-benzothiadiazol-5-ylthio)phenyl]-7-bromo-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 666 in file .gra /

RN 847235-43-2 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-(2,1,3-benzothiadiazol-5-ylthio)phenyl]-7-chloro-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 667 in file .gra /

RN 847235-44-3 CAPLUS
CN 1H-Benzimidazol-2-amine, 7-bromo-N-[4-[(2,3-dihydro-1H-inden-5-yl)oxy]phenyl]-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 668 in file .gra /

RN 847235-45-4 CAPLUS
CN 1H-Inden-1-one, 5-[4-[(6-fluoro-1H-benzimidazol-2-yl)amino]phenoxy]-2,3-dihydro- (CA INDEX NAME)

/ Structure 669 in file .gra /

RN 847235-46-5 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-(2,1,3-benzothiadiazol-5-yloxy)-3-fluorophenyl]-7-bromo-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 670 in file .gra /

RN 847235-47-6 CAPLUS
CN 1H-Benzimidazol-2-amine, N-[4-(2,1,3-benzothiadiazol-5-yloxy)-3-fluorophenyl]-7-chloro-5-(trifluoromethyl)- (CA INDEX NAME)

/ Structure 671 in file .gra /

RN 847235-52-3 CAPLUS
CN 2-Benzofurancarboxylic acid, 5-[4-[[7-bromo-5-(trifluoromethyl)-1H-benzimidazol-2-yl]amino]phenoxy]-, ethyl ester (CA INDEX NAME)

/ Structure 672 in file .gra /

RN 847235-53-4 CAPLUS
CN 2-Benzofurancarboxylic acid, 5-[4-[[7-chloro-5-(trifluoromethyl)-1H-benzimidazol-2-yl]amino]phenoxy]-, ethyl ester (CA INDEX NAME)

/ Structure 673 in file .gra /

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 12 OF 25 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2004:817883 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 141:332190
TITLE: Preparation of fused azoles such as 2,5-disubstituted benzimidazoles, benzoxazoles and benzothiazoles as kinase inhibitors
INVENTOR(S): Dipietro, Lucian V.; Harmange, Jean-Christophe; Askew, Benny C., Jr.; Elbaum, Daniel; Germain, Julie; Habgood, Gregory J.; Kim, Joseph L.; Patel, Vinod F.; Potashman, Michele; Van der Plas, Simon
PATENT ASSIGNEE(S): Amgen Inc., USA
SOURCE: PCT Int. Appl., 289 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004085425	A1	20041007	WO 2004-US8809	20040322

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        W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
            CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
            GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
            LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
            NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
            TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
        RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
            BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,
            ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
            SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,
            TD, TG
    US 20040209892       A1    20041021    US 2004-804915         20040319
    AU 2004223827        A1    20041007    AU 2004-223827         20040322
    AU 2004223827        B2    20080306
    CA 2518909           A1    20041007    CA 2004-2518909        20040322
    EP 1638954           A1    20060329    EP 2004-758050         20040322
        R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK
    JP 2006520805        T     20060914    JP 2006-507472         20040322
    MX 2005010086        A     20060210    MX 2005-10086          20050921
PRIORITY APPLN. INFO.:                     US 2003-456691P     P  20030321
                                           US 2004-804915      A  20040319
                                           WO 2004-US8809      A  20040322
OTHER SOURCE(S):         MARPAT 141:332190
IT   1055984-60-5
     RL: PRPH (Prophetic)
        (Preparation of fused azoles such as 2,5-disubstituted benzimidazoles,
        benzoxazoles and benzothiazoles as kinase inhibitors)
RN   1055984-60-5  CAPLUS
CN   Benzamide, N-methyl-3-[[2-[(4-phenoxyphenyl)amino]-1H-benzimidazol-6-
     yl]thio]-  (CA INDEX NAME)


/ Structure 674 in file .gra /

REFERENCE COUNT:         11    THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3   ANSWER 13 OF 25  CAPLUS  COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER:        2004:513393  CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER:         141:71544
TITLE:                   Preparation of substituted benzazoles as Raf kinase
                         inhibitors
INVENTOR(S):             Amiri, Payman; Fantl, Wendy; Levine, Barry Haskell;
                         Poon, Daniel J.; Ramurthy, Savithri; Renhowe, Paul A.;
                         Subramanian, Sharadha; Sung, Leonard
PATENT ASSIGNEE(S):      USA
SOURCE:                  U.S. Pat. Appl. Publ., 476 pp., Cont.-in-part of U.S.
                         Pat. Appl. 2004 87,626.
                         CODEN: USXXCO
DOCUMENT TYPE:           Patent
LANGUAGE:                English
FAMILY ACC. NUM. COUNT:  2
PATENT INFORMATION:

     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
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     US 20040122237       A1    20040624    US 2003-675927         20030929
     US 20040087626       A1    20040506    US 2003-405945         20030331
     US 7071216           B2    20060704
     AU 2004277405        A1    20050414    AU 2004-277405         20040929
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     CA 2539748           A1    20050414    CA 2004-2539748        20040929
     WO 2005032548        A1    20050414    WO 2004-US32161        20040929
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
             TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
             EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
             SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
             SN, TD, TG
     EP 1675584           A1    20060705    EP 2004-789345         20040929
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK
     BR 2004014908        A     20061107    BR 2004-14908          20040929
     CN 1913884           A     20070214    CN 2004-80032677       20040929
     JP 2007507428        T     20070329    JP 2006-528331         20040929
     US 20070299039       A1    20071227    US 2005-282939         20051118
     MX 2006003435        A     20060620    MX 2006-3435           20060327
     JP 2006193533        A     20060727    JP 2006-96143          20060330
     KR 2006089232        A     20060808    KR 2006-706470         20060403
     IN 2006KN00838       A     20070413    IN 2006-KN838          20060405
PRIORITY APPLN. INFO.:                       US 2002-369066P     P  20020329
                                             US 2003-405945      A2 20030331
                                             JP 2003-579810      A3 20030331
                                             US 2003-675927      A  20030929
                                             WO 2004-US32161     W  20040929
OTHER SOURCE(S):         MARPAT 141:71544
IT   611213-19-5P 611213-76-4P 611214-53-0P
     611217-34-6P
     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
        (Raf kinase inhibitor; preparation of substituted benzazoles as Raf kinase
        inhibitors for treatment of cancer)
RN   611213-19-5  CAPLUS
CN   2-Pyridinecarboxamide, N-methyl-4-[[2-[(4-phenoxyphenyl)amino]-1H-
     benzimidazol-6-yl]oxy]-  (CA INDEX NAME)


/ Structure 675 in file .gra /

RN   611213-76-4  CAPLUS
CN   2-Pyridinecarboxamide, N-methyl-4-[[1-methyl-2-[(4-phenoxyphenyl)amino]-1H-
     benzimidazol-5-yl]oxy]-  (CA INDEX NAME)


/ Structure 676 in file .gra /

RN   611214-53-0  CAPLUS
CN   2-Pyridinecarboxamide, N-methyl-4-[[1-methyl-2-[[4-(4-
     nitrophenoxy)phenyl]amino]-1H-benzimidazol-5-yl]oxy]-  (CA INDEX NAME)


/ Structure 677 in file .gra /

RN   611217-34-6  CAPLUS
CN   2-Pyridinecarboxamide, N-methyl-4-[[2-[(4-phenoxyphenyl)amino]-5-
     benzoxazolyl]oxy]-  (CA INDEX NAME)
```

/ Structure 678 in file .gra /

L3 ANSWER 14 OF 25 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2004:195004 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 140:391238
TITLE: NR2B-Selective N-Methyl-D-aspartate Antagonists: Synthesis and Evaluation of 5-Substituted Benzimidazoles
AUTHOR(S): McCauley, John A.; Theberge, Cory R.; Romano, Joseph J.; Billings, Susan B.; Anderson, Kenneth D.; Claremon, David A.; Freidinger, Roger M.; Bednar, Rodney A.; Mosser, Scott D.; Gaul, Stanley L.; Connolly, Thomas M.; Condra, Cindra L.; Xia, Menghang; Cunningham, Michael E.; Bednar, Bohumil; Stump, Gary L.; Lynch, Joseph J.; Macaulay, Alison; Wafford, Keith A.; Koblan, Kenneth S.; Liverton, Nigel J.
CORPORATE SOURCE: Departments of Medicinal Chemistry, Molecular Pharmacology and Pharmacology, Merck Research Laboratories, West Point, PA, 19486, USA
SOURCE: Journal of Medicinal Chemistry (2004), 47(8), 2089-2096
CODEN: JMCMAR; ISSN: 0022-2623
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 140:391238
IT 68321-05-1P 337964-69-9P 337964-71-3P
337964-72-4P
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
(preparation of 5-substituted benzimidazoles as NR2B-selective N-methyl-D-aspartate antagonists)
RN 68321-05-1 CAPLUS
CN 1H-Benzimidazole, 2-[(4-phenoxyphenyl)methyl]- (CA INDEX NAME)

/ Structure 679 in file .gra /

RN 337964-69-9 CAPLUS
CN 1H-Benzimidazole, 6-methoxy-2-[(4-phenoxyphenyl)methyl]- (CA INDEX NAME)

/ Structure 680 in file .gra /

RN 337964-71-3 CAPLUS
CN 1H-Benzimidazole, 6-nitro-2-[(4-phenoxyphenyl)methyl]- (CA INDEX NAME)

/ Structure 681 in file .gra /

RN 337964-72-4 CAPLUS
CN 1H-Benzimidazol-6-amine, 2-[(4-phenoxyphenyl)methyl]- (CA INDEX NAME)

/ Structure 682 in file .gra /

IT 337964-70-2P 337964-73-5P 337964-79-1P

337964-85-9P 337964-92-8P 337964-94-0P
337965-02-3P 337965-32-9P 337965-44-3P
337965-67-0P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of 5-substituted benzimidazoles as NR2B-selective N-methyl-D-aspartate antagonists)

RN 337964-70-2 CAPLUS
CN 1H-Benzimidazol-6-ol, 2-[(4-phenoxyphenyl)methyl]- (CA INDEX NAME)

/ Structure 683 in file .gra /

RN 337964-73-5 CAPLUS
CN Methanesulfonamide, N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]- (CA INDEX NAME)

/ Structure 684 in file .gra /

RN 337964-79-1 CAPLUS
CN Methanesulfonamide, N-methyl-N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]- (CA INDEX NAME)

/ Structure 685 in file .gra /

RN 337964-85-9 CAPLUS
CN 1H-Benzimidazole-6-carbonitrile, 2-[(4-phenoxyphenyl)methyl]- (CA INDEX NAME)

/ Structure 686 in file .gra /

RN 337964-92-8 CAPLUS
CN Ethanesulfonamide, N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]- (CA INDEX NAME)

/ Structure 687 in file .gra /

RN 337964-94-0 CAPLUS
CN 1-Propanesulfonamide, N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]- (CA INDEX NAME)

/ Structure 688 in file .gra /

RN 337965-02-3 CAPLUS
CN Benzenesulfonamide, N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]- (CA INDEX NAME)

/ Structure 689 in file .gra /

RN 337965-32-9 CAPLUS
CN Acetamide, N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]- (CA INDEX NAME)

/ Structure 690 in file .gra /

RN 337965-44-3 CAPLUS
CN 2-Propanesulfonamide, N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]- (CA INDEX NAME)

/ Structure 691 in file .gra /

RN 337965-67-0 CAPLUS
CN 1H-Benzimidazol-7-ol, 2-[(4-phenoxyphenyl)methyl]- (CA INDEX NAME)

/ Structure 692 in file .gra /

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 15 OF 25 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2003:848645 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 140:296830
TITLE: Synthesis and cytotoxicity of substituted 2-benzylnaphth[2,3-d]imidazoles
AUTHOR(S): Grella, G. E.; Cabras, M. C.; Murineddu, G.; Pau, A.; Pinna, G. A.
CORPORATE SOURCE: Dipartimento Farmaco Chimico Tossicologico, Universita di Sassari, Sassari, 07100, Italy
SOURCE: European Journal of Pharmaceutical Sciences (2003), 20(3), 267-272
CODEN: EPSCED; ISSN: 0928-0987
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 140:296830
IT 676530-61-3P
RL: PAC (Pharmacological activity); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(synthesis and cytotoxicity of substituted 2-benzylnaphth[2,3-d]imidazoles)
RN 676530-61-3 CAPLUS
CN 1H-Naphth[2,3-d]imidazole, 2-[[4-(phenylthio)phenyl]methyl]- (CA INDEX NAME)

/ Structure 693 in file .gra /

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 16 OF 25 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2003:796477 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 139:307759
TITLE: Preparation of substituted benzazoles as Raf kinase inhibitors
INVENTOR(S): Renhowe, Paul A.; Ramurthy, Savithri; Amiri, Payman; Levine, Barry Haskell; Poon, Daniel J.; Subramanian, Sharadha; Sung, Leonard; Fantl, Wendy
PATENT ASSIGNEE(S): Chiron Corporation, USA
SOURCE: PCT Int. Appl., 259 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003082272	A1	20031009	WO 2003-US10117	20030331
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2480638	A1	20031009	CA 2003-2480638	20030331
AU 2003226211	A1	20031013	AU 2003-226211	20030331
AU 2003226211	B2	20080529		
EP 1499311	A1	20050126	EP 2003-745683	20030331
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003008854	A	20050222	BR 2003-8854	20030331
CN 1655779	A	20050817	CN 2003-812193	20030331
JP 2005529089	T	20050929	JP 2003-579810	20030331
NZ 535985	A	20070427	NZ 2003-535985	20030331
AP 1913	A	20081031	AP 2004-3161	20030331
IN 2004KN01433	A	20051230	IN 2004-KN1433	20040927
MX 2004009541	A	20050125	MX 2004-9541	20040929
NO 2004004617	A	20041228	NO 2004-4617	20041026
ZA 2004008386	A	20060531	ZA 2004-8386	20060308
JP 2006193533	A	20060727	JP 2006-96143	20060330

PRIORITY APPLN. INFO.:
US 2002-369066P P 20020329
JP 2003-579810 A3 20030331
WO 2003-US10117 W 20030331

OTHER SOURCE(S): MARPAT 139:307759

IT 611213-19-5P 611213-76-4P 611214-53-0P
611217-34-6P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of substituted benzazoles as Raf kinase inhibitors)

RN 611213-19-5 CAPLUS
CN 2-Pyridinecarboxamide, N-methyl-4-[[2-[(4-phenoxyphenyl)amino]-1H-benzimidazol-6-yl]oxy]- (CA INDEX NAME)

/ Structure 694 in file .gra /

RN 611213-76-4 CAPLUS
CN 2-Pyridinecarboxamide, N-methyl-4-[[1-methyl-2-[(4-phenoxyphenyl)amino]-1H-benzimidazol-5-yl]oxy]- (CA INDEX NAME)

/ Structure 695 in file .gra /

RN 611214-53-0 CAPLUS
CN 2-Pyridinecarboxamide, N-methyl-4-[[1-methyl-2-[[4-(4-nitrophenoxy)phenyl]amino]-1H-benzimidazol-5-yl]oxy]- (CA INDEX NAME)

/ Structure 696 in file .gra /

RN 611217-34-6 CAPLUS
CN 2-Pyridinecarboxamide, N-methyl-4-[[2-[(4-phenoxyphenyl)amino]-5-benzoxazolyl]oxy]- (CA INDEX NAME)

/ Structure 697 in file .gra /

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 17 OF 25 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2003:570948 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 139:133343
TITLE: Preparation of arylsulfonylalkanoic acids as αvβ3 and αvβ5 integrin antagonists
INVENTOR(S): Dixon, Julie; Brennan, Catherine; Dumas, Jacques; Hatoum-Mokdad, Holia; Sibley, Robert; Hart, Barry; Khire, Uday; Scott, William J.; Johson, Jeffrey; Liu, Peying; Redman, Aniko; Wood, Jill
PATENT ASSIGNEE(S): Bayer Corporation, USA
SOURCE: PCT Int. Appl., 261 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2003059872	A1	20030724	WO 2002-US41692		20021231
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
AU 2002364260	A1	20030730	AU 2002-364260		20021231
PRIORITY APPLN. INFO.:			US 2001-345726P	P	20011231
			WO 2002-US41692	W	20021231

OTHER SOURCE(S): MARPAT 139:133343
IT 569305-98-2P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of arylsulfonylalkanoic acids as αvβ3 and αvβ5 integrin antagonists)
RN 569305-98-2 CAPLUS
CN Benzenepropanoic acid, β-[[[4-[4-(2-benzothiazolylamino)phenoxy]phenyl]sulfonyl]methyl]- (CA INDEX NAME)

/ Structure 698 in file .gra /

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 18 OF 25 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2003:492184 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 139:69263
TITLE: Preparation of benzimidazoles as gonadotropin-releasing hormone receptor antagonists and their use against cancer and other diseases
INVENTOR(S): Poitout, Lydie; Brault, Valerie; Ferrandis, Eric; Thurieau, Christophe
PATENT ASSIGNEE(S): Societe De Conseils De Recherches Et D'Applications Scientifiques SCRAS, Fr.
SOURCE: Fr. Demande, 140 pp.
CODEN: FRXXBL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2833948	A1	20030627	FR 2001-16647	20011221
FR 2833948	B1	20040206		
CA 2471044	A1	20030703	CA 2002-2471044	20021220
WO 2003053939	A1	20030703	WO 2002-FR4477	20021220
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002365016	A1	20030709	AU 2002-365016	20021220
AU 2002365016	B2	20081120		
EP 1467974	A1	20041020	EP 2002-805404	20021220
EP 1467974	B1	20070815		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
CN 1615300	A	20050511	CN 2002-827409	20021220
CN 100334077	C	20070829		
JP 2005514397	T	20050519	JP 2003-554655	20021220
HU 2005000183	A2	20050530	HU 2005-183	20021220
NZ 533558	A	20051223	NZ 2002-533558	20021220
RU 2294326	C2	20070227	RU 2004-122102	20021220
AT 370126	T	20070915	AT 2002-805404	20021220
ES 2291544	T3	20080301	ES 2002-805404	20021220
US 20050049290	A1	20050303	US 2004-499384	20040616
NO 2004003095	A	20040719	NO 2004-3095	20040719
HK 1070359	A1	20080704	HK 2005-103022	20050411

PRIORITY APPLN. INFO.: FR 2001-16647 A 20011221
WO 2002-FR4477 W 20021220

OTHER SOURCE(S): MARPAT 139:69263
IT 549540-90-1P, N,N-Diisobutyl-1-[3-[(methyl)(2-phenylethyl)amino]propyl]-2-[(4-phenoxyphenyl)amino]-1H-benzimidazole-5-carboxamide 549541-14-2P, N-[4-(Diethylamino)phenyl]-1-[3-[(methyl)(2-phenylethyl)amino]propyl]-2-[(4-phenoxyphenyl)amino]-1H-benzimidazole-5-carboxamide

549541-38-0P, N,N-Diisobutyl-1-[3-[(methyl)(2-(pyridin-2-yl)ethyl)amino]propyl]-2-[(4-phenoxyphenyl)amino]-1H-benzimidazole-5-carboxamide
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of benzimidazoles as gonadotropin-releasing hormone receptor antagonists and their use against cancer and other diseases)
RN 549540-90-1 CAPLUS
CN 1H-Benzimidazole-5-carboxamide, 1-[3-[methyl(2-phenylethyl)amino]propyl]-N,N-bis(2-methylpropyl)-2-[(4-phenoxyphenyl)amino]- (CA INDEX NAME)

/ Structure 699 in file .gra /

RN 549541-14-2 CAPLUS
CN 1H-Benzimidazole-5-carboxamide, N-[4-(diethylamino)phenyl]-1-[3-[methyl(2-phenylethyl)amino]propyl]-2-[(4-phenoxyphenyl)amino]- (CA INDEX NAME)

/ Structure 700 in file .gra /

RN 549541-38-0 CAPLUS
CN 1H-Benzimidazole-5-carboxamide, N,N-bis(2-methylpropyl)-1-[3-[methyl[2-(2-pyridinyl)ethyl]amino]propyl]-2-[(4-phenoxyphenyl)amino]- (CA INDEX NAME)

/ Structure 701 in file .gra /

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 19 OF 25 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2001:338351 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 134:340508
TITLE: Preparation of 2-benzyl and 2-heteroaryl benzimidazole NMDA/NR2B antagonists
INVENTOR(S): McCauley, John A.; Theberge, Cory R.; Liverton, Nigel J.; Claremon, David A.; Claiborne, Christopher F.
PATENT ASSIGNEE(S): Merck & Co., Inc., USA
SOURCE: PCT Int. Appl., 80 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001032174	A1	20010510	WO 2000-US29470	20001026
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6316474	B1	20011113	US 2000-696501	20001025

CA 2389259 A1 20010510 CA 2000-2389259 20001026
EP 1242076 A1 20020925 EP 2000-975393 20001026
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL
JP 2003513041 T 20030408 JP 2001-534379 20001026
PRIORITY APPLN. INFO.: US 1999-162351P P 19991029
WO 2000-US29470 W 20001026

OTHER SOURCE(S): MARPAT 134:340508

IT 337964-69-9P, 6-Methoxy-2-(4-phenoxybenzyl)-1H-benzimidazole
337964-71-3P, 6-Nitro-2-(4-phenoxybenzyl)-1H-benzimidazole
337964-72-4P, 2-(4-Phenoxybenzyl)-3H-benzimidazol-5-ylamine
337964-73-5P, N-[2-(4-Phenoxybenzyl)-3H-benzimidazol-5-yl]methanesulfonamide 337964-80-4P, 5-(1,3-Dioxo-1,3-dihydro-2H-isoindol-2-yl)-N-[2-(4-phenoxybenzyl)-1H-benzimidazol-6-yl]pentane-1-sulfonamide 337964-81-5P, 5-Amino-N-[2-(4-phenoxybenzyl)-1H-benzimidazol-6-yl]pentane-1-sulfonamide 337964-85-9P, 2-(4-Phenoxybenzyl)-1H-benzimidazole-6-carbonitrile 337964-86-0P, 1-[2-(4-Phenoxybenzyl)-1H-benzimidazole-6-yl]methanamine
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of 2-benzyl and 2-heteroaryl benzimidazole NMDA/NR2B antagonists by cycloaddn. of phenylenediamines with arylacetates)

RN 337964-69-9 CAPLUS
CN 1H-Benzimidazole, 6-methoxy-2-[(4-phenoxyphenyl)methyl]- (CA INDEX NAME)

/ Structure 702 in file .gra /

RN 337964-71-3 CAPLUS
CN 1H-Benzimidazole, 6-nitro-2-[(4-phenoxyphenyl)methyl]- (CA INDEX NAME)

/ Structure 703 in file .gra /

RN 337964-72-4 CAPLUS
CN 1H-Benzimidazol-6-amine, 2-[(4-phenoxyphenyl)methyl]- (CA INDEX NAME)

/ Structure 704 in file .gra /

RN 337964-73-5 CAPLUS
CN Methanesulfonamide, N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]- (CA INDEX NAME)

/ Structure 705 in file .gra /

RN 337964-80-4 CAPLUS
CN 2H-Isoindole-2-pentanesulfonamide, 1,3-dihydro-1,3-dioxo-N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]- (CA INDEX NAME)

/ Structure 706 in file .gra /

RN 337964-81-5 CAPLUS
CN 1-Pentanesulfonamide, 5-amino-N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]- (CA INDEX NAME)

/ Structure 707 in file .gra /

RN 337964-85-9 CAPLUS
CN 1H-Benzimidazole-6-carbonitrile, 2-[(4-phenoxyphenyl)methyl]- (CA INDEX NAME)

/ Structure 708 in file .gra /

RN 337964-86-0 CAPLUS
CN 1H-Benzimidazole-6-methanamine, 2-[(4-phenoxyphenyl)methyl]- (CA INDEX NAME)

/ Structure 709 in file .gra /

IT 68321-05-1P, 2-(4-Phenoxybenzyl)-1H-benzimidazole
337964-70-2P 337964-79-1P,
N-Methyl-N-[2-(4-phenoxybenzyl)-1H-benzimidazol-6-yl]methanesulfonamide
337964-82-6P 337964-83-7P,
N-[5-[[[2-(4-Phenoxybenzyl)-1H-benzimidazol-6-yl]amino]sulfonyl]pentyl]acetamide 337964-87-1P,
N-[[2-(4-Phenoxybenzyl)-1H-benzimidazole-6-yl]methyl]propane-2-sulfonamide
337964-88-2P, N-[2-(3-Cyano-4-phenoxybenzyl)-1H-benzimidazol-6-yl]methanesulfonamide 337964-93-9P 337964-94-0P
337964-95-1P 337964-96-2P 337964-97-3P
337964-98-4P 337964-99-5P 337965-00-1P
337965-01-2P 337965-02-3P 337965-03-4P
337965-05-6P 337965-07-8P 337965-09-0P
337965-11-4P 337965-13-6P 337965-15-8P
337965-17-0P 337965-19-2P 337965-21-6P
337965-23-8P 337965-25-0P 337965-27-2P
337965-29-4P 337965-31-8P 337965-33-0P
337965-35-2P 337965-37-4P 337965-38-5P
337965-40-9P 337965-41-0P 337965-42-1P
337965-43-2P 337965-45-4P 337965-47-6P
337965-48-7P 337965-50-1P 337965-52-3P
337965-67-0P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of 2-benzyl and 2-heteroaryl benzimidazole NMDA/NR2B antagonists by cycloaddn. of phenylenediamines with arylacetates)
RN 68321-05-1 CAPLUS
CN 1H-Benzimidazole, 2-[(4-phenoxyphenyl)methyl]- (CA INDEX NAME)

/ Structure 710 in file .gra /

RN 337964-70-2 CAPLUS
CN 1H-Benzimidazol-6-ol, 2-[(4-phenoxyphenyl)methyl]- (CA INDEX NAME)

/ Structure 711 in file .gra /

RN 337964-79-1 CAPLUS
CN Methanesulfonamide, N-methyl-N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]- (CA INDEX NAME)

/ Structure 712 in file .gra /

RN 337964-82-6 CAPLUS
CN 1-Pentanesulfonamide, 5-[[[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)amino]thioxomethyl]amino]-N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]- (CA INDEX NAME)

/ Structure 713 in file .gra /

/ Structure 714 in file .gra /

RN 337964-83-7 CAPLUS
CN Acetamide, N-[5-[[[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]amino]sulfonyl]pentyl]- (CA INDEX NAME)

/ Structure 715 in file .gra /

RN 337964-87-1 CAPLUS
CN 2-Propanesulfonamide, N-[[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]methyl]- (CA INDEX NAME)

/ Structure 716 in file .gra /

RN 337964-88-2 CAPLUS
CN Methanesulfonamide, N-[2-[(3-cyano-4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]- (CA INDEX NAME)

/ Structure 717 in file .gra /

RN 337964-93-9 CAPLUS
CN Ethanesulfonamide, N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

    CM 1

    CRN 337964-92-8
    CMF C22 H21 N3 O3 S

/ Structure 718 in file .gra /

    CM 2

    CRN 76-05-1
    CMF C2 H F3 O2

/ Structure 719 in file .gra /

RN 337964-94-0 CAPLUS
CN 1-Propanesulfonamide, N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]- (CA INDEX NAME)

/ Structure 720 in file .gra /

RN 337964-95-1 CAPLUS
CN 1-Propanesulfonamide, N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 337964-94-0
CMF C23 H23 N3 O3 S

/ Structure 721 in file .gra /

CM 2

CRN 76-05-1
CMF C2 H F3 O2

/ Structure 722 in file .gra /

RN 337964-96-2 CAPLUS
CN 1-Butanesulfonamide, N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]- (CA INDEX NAME)

/ Structure 723 in file .gra /

RN 337964-97-3 CAPLUS
CN 1-Butanesulfonamide, N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 337964-96-2
CMF C24 H25 N3 O3 S

/ Structure 724 in file .gra /

CM 2

CRN 76-05-1
CMF C2 H F3 O2

/ Structure 725 in file .gra /

RN 337964-98-4 CAPLUS
CN 2-Thiophenesulfonamide, N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]- (CA INDEX NAME)

/ Structure 726 in file .gra /

RN 337964-99-5 CAPLUS
CN 2-Thiophenesulfonamide, N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 337964-98-4
CMF C24 H19 N3 O3 S2

/ Structure 727 in file .gra /

CM 2

CRN 76-05-1
CMF C2 H F3 O2

/ Structure 728 in file .gra /

RN 337965-00-1 CAPLUS
CN 1H-Imidazole-4-sulfonamide, 1-methyl-N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]- (CA INDEX NAME)

/ Structure 729 in file .gra /

RN 337965-01-2 CAPLUS
CN 1H-Imidazole-4-sulfonamide, 1-methyl-N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 337965-00-1
CMF C24 H21 N5 O3 S

/ Structure 730 in file .gra /

CM 2

CRN 76-05-1
CMF C2 H F3 O2

/ Structure 731 in file .gra /

RN 337965-02-3 CAPLUS
CN Benzenesulfonamide, N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]- (CA INDEX NAME)

/ Structure 732 in file .gra /

RN 337965-03-4 CAPLUS
CN Benzenesulfonamide, N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 337965-02-3
CMF C26 H21 N3 O3 S

/ Structure 733 in file .gra /

CM 2

CRN 76-05-1
CMF C2 H F3 O2

/ Structure 734 in file .gra /

RN 337965-05-6 CAPLUS
CN Benzenesulfonamide, 2-methyl-N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 337965-04-5
CMF C27 H23 N3 O3 S

/ Structure 735 in file .gra /

CM 2

CRN 76-05-1
CMF C2 H F3 O2

/ Structure 736 in file .gra /

RN 337965-07-8 CAPLUS
CN Benzenesulfonamide, 3-methyl-N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 337965-06-7
CMF C27 H23 N3 O3 S

/ Structure 737 in file .gra /

CM 2

CRN 76-05-1
CMF C2 H F3 O2

/ Structure 738 in file .gra /

RN 337965-09-0 CAPLUS
CN Benzenesulfonamide, 4-methyl-N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 337965-08-9
CMF C27 H23 N3 O3 S

/ Structure 739 in file .gra /

CM 2

CRN 76-05-1
CMF C2 H F3 O2

/ Structure 740 in file .gra /

RN 337965-11-4 CAPLUS
CN Benzenesulfonamide, 3-chloro-N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 337965-10-3
CMF C26 H20 Cl N3 O3 S

/ Structure 741 in file .gra /

CM 2

CRN 76-05-1
CMF C2 H F3 O2

/ Structure 742 in file .gra /

RN 337965-13-6 CAPLUS
CN Benzenesulfonamide, 4-chloro-N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 337965-12-5
CMF C26 H20 Cl N3 O3 S

/ Structure 743 in file .gra /

CM 2

CRN 76-05-1
CMF C2 H F3 O2

/ Structure 744 in file .gra /

RN 337965-15-8 CAPLUS
CN Benzenesulfonamide, 2-fluoro-N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 337965-14-7
CMF C26 H20 F N3 O3 S

/ Structure 745 in file .gra /

CM 2

CRN 76-05-1
CMF C2 H F3 O2

/ Structure 746 in file .gra /

RN 337965-17-0 CAPLUS
CN Benzenesulfonamide, 4-fluoro-N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 337965-16-9
CMF C26 H20 F N3 O3 S

/ Structure 747 in file .gra /

CM 2

CRN 76-05-1
CMF C2 H F3 O2

/ Structure 748 in file .gra /

RN 337965-19-2 CAPLUS
CN Benzenesulfonamide, 4-methoxy-N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 337965-18-1
CMF C27 H23 N3 O4 S

/ Structure 749 in file .gra /

CM 2

CRN 76-05-1
CMF C2 H F3 O2

/ Structure 750 in file .gra /

RN 337965-21-6 CAPLUS
CN Benzenesulfonamide, N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]-2-

(trifluoromethoxy)-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 337965-20-5
CMF C27 H20 F3 N3 O4 S

/ Structure 751 in file .gra /

CM 2

CRN 76-05-1
CMF C2 H F3 O2

/ Structure 752 in file .gra /

RN 337965-23-8 CAPLUS
CN Benzenesulfonamide, N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]-2-(trifluoromethyl)-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 337965-22-7
CMF C27 H20 F3 N3 O3 S

/ Structure 753 in file .gra /

CM 2

CRN 76-05-1
CMF C2 H F3 O2

/ Structure 754 in file .gra /

RN 337965-25-0 CAPLUS
CN Benzenesulfonamide, N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]-4-(trifluoromethyl)-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 337965-24-9
CMF C27 H20 F3 N3 O3 S

/ Structure 755 in file .gra /

CM 2

CRN 76-05-1
CMF C2 H F3 O2

/ Structure 756 in file .gra /

RN 337965-27-2 CAPLUS
CN 4-Isoxazolesulfonamide, 3,5-dimethyl-N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 337965-26-1
CMF C25 H22 N4 O4 S

/ Structure 757 in file .gra /

CM 2

CRN 76-05-1
CMF C2 H F3 O2

/ Structure 758 in file .gra /

RN 337965-29-4 CAPLUS
CN 2-Thiophenesulfonamide, N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]-5-(phenylsulfonyl)-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 337965-28-3
CMF C30 H23 N3 O5 S3

/ Structure 759 in file .gra /

CM 2

CRN 76-05-1
CMF C2 H F3 O2

/ Structure 760 in file .gra /

RN 337965-31-8 CAPLUS
CN 3-Thiophenesulfonamide, 2,5-dichloro-N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 337965-30-7
CMF C24 H17 Cl2 N3 O3 S2

/ Structure 761 in file .gra /

CM 2

CRN 76-05-1
CMF C2 H F3 O2

/ Structure 762 in file .gra /

RN 337965-33-0 CAPLUS
CN Acetamide, N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]-,
    2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

    CM 1

    CRN 337965-32-9
    CMF C22 H19 N3 O2

/ Structure 763 in file .gra /

    CM 2

    CRN 76-05-1
    CMF C2 H F3 O2

/ Structure 764 in file .gra /

RN 337965-35-2 CAPLUS
CN Methanesulfonamide, 1,1,1-trifluoro-N-[2-[(4-phenoxyphenyl)methyl]-1H-
    benzimidazol-6-yl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

    CM 1

    CRN 337965-34-1
    CMF C21 H16 F3 N3 O3 S

/ Structure 765 in file .gra /

    CM 2

    CRN 76-05-1
    CMF C2 H F3 O2

/ Structure 766 in file .gra /

RN 337965-37-4 CAPLUS
CN Methanesulfonamide, 1-chloro-N-[2-[(4-phenoxyphenyl)methyl]-1H-
    benzimidazol-6-yl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

    CM 1

    CRN 337965-36-3
    CMF C21 H18 Cl N3 O3 S

/ Structure 767 in file .gra /

    CM 2

    CRN 76-05-1
    CMF C2 H F3 O2

/ Structure 768 in file .gra /

RN 337965-38-5 CAPLUS
CN Thiourea, N-(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-
    [9H]xanthen]-5-yl)-N'-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]-
    (CA INDEX NAME)

/ Structure 769 in file .gra /

RN 337965-40-9 CAPLUS
CN 1-Naphthalenesulfonamide, 5-(dimethylamino)-N-[2-[(4-phenoxyphenyl)methyl]-
    1H-benzimidazol-6-yl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

    CM 1

    CRN 337965-39-6
    CMF C32 H28 N4 O3 S

/ Structure 770 in file .gra /

    CM 2

    CRN 76-05-1
    CMF C2 H F3 O2

/ Structure 771 in file .gra /

RN 337965-41-0 CAPLUS
CN Thiourea, N-(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-
    [9H]xanthen]-6-yl)-N'-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]-
    (CA INDEX NAME)

/ Structure 772 in file .gra /

RN 337965-42-1 CAPLUS
CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthene]-6-carboxamide,
    3',6'-dihydroxy-3-oxo-N-[6-oxo-6-[[2-[(4-phenoxyphenyl)methyl]-1H-
    benzimidazol-6-yl]amino]hexyl]- (CA INDEX NAME)

/ Structure 773 in file .gra /

/ Structure 774 in file .gra /

RN 337965-43-2 CAPLUS
CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthene]-5-carboxamide,
    3',6'-dihydroxy-3-oxo-N-[6-oxo-6-[[2-[(4-phenoxyphenyl)methyl]-1H-
    benzimidazol-6-yl]amino]hexyl]- (CA INDEX NAME)

/ Structure 775 in file .gra /

/ Structure 776 in file .gra /

RN 337965-45-4 CAPLUS
CN 2-Propanesulfonamide, N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

    CM 1

    CRN 337965-44-3
    CMF C23 H23 N3 O3 S

/ Structure 777 in file .gra /

    CM 2

    CRN 76-05-1
    CMF C2 H F3 O2

/ Structure 778 in file .gra /

RN 337965-47-6 CAPLUS
CN Ethenesulfonamide, N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]-2-phenyl-, (1E)-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

    CM 1

    CRN 337965-46-5
    CMF C28 H23 N3 O3 S

Double bond geometry as shown.

/ Structure 779 in file .gra /

    CM 2

    CRN 76-05-1
    CMF C2 H F3 O2

/ Structure 780 in file .gra /

RN 337965-48-7 CAPLUS
CN 2-Butanesulfonamide, N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]-, hydrochloride (1:1) (CA INDEX NAME)

/ Structure 781 in file .gra /

RN 337965-50-1 CAPLUS
CN 1-Propene-1-sulfonamide, 2-methyl-N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

    CM 1

    CRN 337965-49-8
    CMF C24 H23 N3 O3 S

/ Structure 782 in file .gra /

CM 2

CRN 76-05-1
CMF C2 H F3 O2

/ Structure 783 in file .gra /

RN 337965-52-3 CAPLUS
CN 1-Propanesulfonamide, 2-methyl-N-[2-[(4-phenoxyphenyl)methyl]-1H-benzimidazol-6-yl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 337965-51-2
CMF C24 H25 N3 O3 S

/ Structure 784 in file .gra /

CM 2

CRN 76-05-1
CMF C2 H F3 O2

/ Structure 785 in file .gra /

RN 337965-67-0 CAPLUS
CN 1H-Benzimidazol-7-ol, 2-[(4-phenoxyphenyl)methyl]- (CA INDEX NAME)

/ Structure 786 in file .gra /

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 20 OF 25 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2000:84790 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 132:137375
TITLE: Preparation of benzoxazole derivatives for inhibiting the interaction between VCAM-1 and/or fibronectin and the integrin receptor VLA-4
INVENTOR(S): Brittain, David Robert; Johnstone, Craig; Davies, Gareth Morse; Large, Michael Stewart
PATENT ASSIGNEE(S): Zeneca Limited, UK
SOURCE: PCT Int. Appl., 125 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000005223	A2	20000203	WO 1999-GB2330	19990720

WO 2000005223 A3 20010712
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
AU 9950521 A1 20000214 AU 1999-50521 19990720
EP 1133484 A2 20010919 EP 1999-934885 19990720
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO
JP 2002521375 T 20020716 JP 2000-561179 19990720
PRIORITY APPLN. INFO.: GB 1998-15970 A 19980723
GB 1998-15972 A 19980723
GB 1999-14441 A 19990622
WO 1999-GB2330 W 19990720
OTHER SOURCE(S): MARPAT 132:137375
IT 256522-37-9P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of benzoxazole derivs. for inhibiting the interaction between VCAM-1 and/or fibronectin and the integrin receptor VLA-4)
RN 256522-37-9 CAPLUS
CN 1,3-Benzodioxole-5-propanoic acid, β-[[(2S)-4-methyl-1-oxo-2-[[2-[2-[(4-phenoxyphenyl)amino]-6-benzoxazolyl]acetyl]amino]pentyl]amino]-, (βS)- (CA INDEX NAME)

Absolute stereochemistry.

/ Structure 787 in file .gra /

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 21 OF 25 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1990:478244 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 113:78244
ORIGINAL REFERENCE NO.: 113:13239a,13242a
TITLE: Diheterocyclic compounds from dithiocarbamates and derivatives thereof. I. 2,2'-(Arylenediamino)bisbenzoazoles, 2,2'-(arylenediamino)bis(imidazopyridines) and 8,8'-(arylenediamino)bispurines
AUTHOR(S): Garin, Javier; Melendez, Enrique; Merchan, Francisco L.; Merino, Pedro; Orduna, Jesus; Tejedor, Rosa; Tejero, Tomas
CORPORATE SOURCE: Inst. Cienc. Mater. Aragon, Univ. Zaragoza, Zaragoza, E-50009, Spain
SOURCE: Journal of Heterocyclic Chemistry (1990), 27(2), 221-6
CODEN: JHTCAD; ISSN: 0022-152X
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 113:78244
IT 128587-14-4P 128587-18-8P 128587-31-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 128587-14-4 CAPLUS

CN 2-Benzothiazolamine, N,N'-(oxydi-4,1-phenylene)bis- (9CI) (CA INDEX NAME)

/ Structure 788 in file .gra /

RN 128587-18-8 CAPLUS
CN 2-Benzoxazolamine, N,N'-(oxydi-4,1-phenylene)bis- (9CI) (CA INDEX NAME)

/ Structure 789 in file .gra /

RN 128587-31-5 CAPLUS
CN 1H-Benzimidazol-2-amine, N,N'-(oxydi-4,1-phenylene)bis- (9CI) (CA INDEX NAME)

/ Structure 790 in file .gra /

L3 ANSWER 22 OF 25 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1981:30644 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 94:30644
ORIGINAL REFERENCE NO.: 94:5055a,5058a
TITLE: Synthesis of 2-substituted benzimidazoles
AUTHOR(S): Todorova, N.; Zhelyazkov, L.; Vodenicharov, R.
CORPORATE SOURCE: Bulg.
SOURCE: Trudove na Nauchnoizsledovatelskiya Khimikofarmatsevtichen Institut (1978), 10, 85-94
CODEN: TKZGAG; ISSN: 0371-8972
DOCUMENT TYPE: Journal
LANGUAGE: Bulgarian
OTHER SOURCE(S): CASREACT 94:30644
IT 68321-05-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, oxidation and UV and IR spectra of)
RN 68321-05-1 CAPLUS
CN 1H-Benzimidazole, 2-[(4-phenoxyphenyl)methyl]- (CA INDEX NAME)

/ Structure 791 in file .gra /

L3 ANSWER 23 OF 25 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1978:614554 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 89:214554
ORIGINAL REFERENCE NO.: 89:33321a,33324a
TITLE: Spectral behavior of 2-substituted benzimidazole derivatives of biphenyl and biphenyl ether
AUTHOR(S): Vodenicharov, R. I.; Todorova, N. I.
CORPORATE SOURCE: Pharm. Res. Inst., Sofia, Bulg.
SOURCE: Doklady Bolgarskoi Akademii Nauk (1978), 31(4), 441-4
CODEN: DBANAD; ISSN: 0366-8681
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 68321-05-1
RL: PRP (Properties)
(IR and UV spectra of)
RN 68321-05-1 CAPLUS
CN 1H-Benzimidazole, 2-[(4-phenoxyphenyl)methyl]- (CA INDEX NAME)

/ Structure 792 in file .gra /

L3 ANSWER 24 OF 25 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1970:111896 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 72:111896
ORIGINAL REFERENCE NO.: 72:20233a,20236a
TITLE: Synthesis and characterization of polyiminobenzothiazoles
AUTHOR(S): Evers, Robert C.
CORPORATE SOURCE: Air Force Mater. Lab., Wright-Patterson Air Force Base, OH, USA
SOURCE: Journal of Polymer Science, Part A-1: Polymer Chemistry (1970), 8(2), 563-76
CODEN: JPSPC3; ISSN: 0449-296X
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 26659-47-2P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and properties of)
RN 26659-47-2 CAPLUS
CN Poly(benzo[1,2-d:5,4-d']bisthiazole-2,6-diylimino-1,4-phenylenesulfonyl-1,4-phenyleneimino) (9CI) (CA INDEX NAME)

/ Structure 793 in file .gra /

IT 26659-48-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 26659-48-3 CAPLUS
CN Poly(benzo[1,2-d:5,4-d']bisthiazole-2,6-diylimino-1,4-phenyleneoxy-1,4-phenyleneimino) (9CI) (CA INDEX NAME)

/ Structure 794 in file .gra /

L3 ANSWER 25 OF 25 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1963:409014 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 59:9014
ORIGINAL REFERENCE NO.: 59:1645h,1646a-c
TITLE: Benzimidazolylalkylbenzenesulfonamides
INVENTOR(S): Moyle, Clarence L.; Chern, Diomed M.
PATENT ASSIGNEE(S): Dow Chemical Co.
SOURCE: 12 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3075991		19630129	US 1960-349360	19600120

PRIORITY APPLN. INFO.: US 19600120
IT 94312-08-0P, Piperidine, 1-[(α-2-benzimidazolyl-p-tolyl)sulfonyl]-
RL: PREP (Preparation)
(preparation of)
RN 94312-08-0 CAPLUS
CN 1H-Benzimidazole, 2-[[4-(1-piperidinylsulfonyl)phenyl]methyl]- (CA INDEX

```
     NAME)


/ Structure 795 in file .gra /



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COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                     104.25     291.40

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L1             STRUCTURE UPLOADED
L2          352 S L1 SSS FULL

     FILE 'CAPLUS' ENTERED AT 09:20:21 ON 03 FEB 2009

     FILE 'STNGUIDE' ENTERED AT 09:20:29 ON 03 FEB 2009

     FILE 'CAPLUS' ENTERED AT 09:20:38 ON 03 FEB 2009
L3           25 S L2

     FILE 'STNGUIDE' ENTERED AT 09:29:13 ON 03 FEB 2009

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ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF
LOGOFF? (Y)/N/HOLD:y


     (FILE 'HOME' ENTERED AT 09:19:08 ON 03 FEB 2009)

     FILE 'REGISTRY' ENTERED AT 09:19:19 ON 03 FEB 2009
L1             STRUCTURE UPLOADED
               D
L2          352 SEA SSS FUL L1

     FILE 'CAPLUS' ENTERED AT 09:20:21 ON 03 FEB 2009

     FILE 'STNGUIDE' ENTERED AT 09:20:29 ON 03 FEB 2009

     FILE 'CAPLUS' ENTERED AT 09:20:38 ON 03 FEB 2009
L3           25 SEA SPE=ON  ABB=ON  PLU=ON  L2
               D 1-25 IBIB HITSTR

     FILE 'STNGUIDE' ENTERED AT 09:29:13 ON 03 FEB 2009
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
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FULL ESTIMATED COST                                    5.53     296.93

STN INTERNATIONAL LOGOFF AT 10:16:33 ON 03 FEB 2009


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 NEWS  1          Web Page for STN Seminar Schedule - N. America
 NEWS  2  NOV 21  CAS patent coverage to include exemplified prophetic
                  substances identified in English-, French-, German-,
                  and Japanese-language basic patents from 2004-present
 NEWS  3  NOV 26  MARPAT enhanced with FSORT command
 NEWS  4  NOV 26  CHEMSAFE now available on STN Easy
 NEWS  5  NOV 26  Two new SET commands increase convenience of STN
                  searching
 NEWS  6  DEC 01  ChemPort single article sales feature unavailable
 NEWS  7  DEC 12  GBFULL now offers single source for full-text
                  coverage of complete UK patent families
 NEWS  8  DEC 17  Fifty-one pharmaceutical ingredients added to PS
 NEWS  9  JAN 06  The retention policy for unread STNmail messages
                  will change in 2009 for STN-Columbus and STN-Tokyo
 NEWS 10  JAN 07  WPIDS, WPINDEX, and WPIX enhanced Japanese Patent
                  Classification Data
 NEWS 11  FEB 02  Simultaneous left and right truncation (SLART) added
                  for CERAB, COMPUAB, ELCOM, and SOLIDSTATEM
 NEWS 12  FEB 02  GENBANK enhanced with SET PLURALS and SET SPELLING

 NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,
              AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

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FILE 'HOME' ENTERED AT 10:31:41 ON 03 FEB 2009
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=> file capl uspatfull biosis dissabs
COST IN U.S. DOLLARS                            SINCE FILE      TOTAL
                                                     ENTRY    SESSION
FULL ESTIMATED COST                                   0.44       0.44

FILE 'CAPLUS' ENTERED AT 10:32:51 ON 03 FEB 2009
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FILE 'DISSABS' ENTERED AT 10:32:51 ON 03 FEB 2009
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=> s (raf or tyr or tyrosine) (A) kinase
L1      133959 (RAF OR TYR OR TYROSINE) (A) KINASE

=> s inhibitor (5A) l1
L2       31230 INHIBITOR (5A) L1

=> s l2/ti or l2/ab
L3       22162 L2/TI OR L2/AB

=> s l3 and benzoxazol? or benzimidazol?
L4       96009 L3 AND BENZOXAZOL? OR BENZIMIDAZOL?

=> s l3 and (benzoxazol? or benzimidazol?)
L5         363 L3 AND (BENZOXAZOL? OR BENZIMIDAZOL?)

=> s l5 and (ay<2005 OR py<2005 OR pry<2005)
'2005' NOT A VALID FIELD CODE
'2005' NOT A VALID FIELD CODE
'2005' NOT A VALID FIELD CODE
'2005' NOT A VALID FIELD CODE
L6         285 L5 AND (AY<2005 OR PY<2005 OR PRY<2005)

=> s l3 (L) (benzoxazol? or benzimidazol?)
L7          69 L3 (L) (BENZOXAZOL? OR BENZIMIDAZOL?)

=> s l7 and (ay<2005 OR py<2005 OR pry<2005)
'2005' NOT A VALID FIELD CODE
'2005' NOT A VALID FIELD CODE
'2005' NOT A VALID FIELD CODE
'2005' NOT A VALID FIELD CODE
L8          45 L7 AND (AY<2005 OR PY<2005 OR PRY<2005)

=> d 40-45 ibib abs

L8   ANSWER 40 OF 45  BIOSIS  COPYRIGHT (c) 2009 The Thomson Corporation  on
     STN
ACCESSION NUMBER:   2001:199094  BIOSIS <<LOGINID::20090203>>
DOCUMENT NUMBER:    PREV200100199094
TITLE:              Fibroblast growth factor-2 (FGF-2) increases N-cadherin
                    expression through protein kinase C and Src-kinase pathways
                    in human calvaria osteoblasts.
AUTHOR(S):          Debiais, Francoise; Lemonnier, Jerome; Hay, Eric; Delannoy,
```

Philippe; Caverzasio, Joseph; Marie, Pierre J. [Reprint author]
CORPORATE SOURCE: INSERM U349, Lariboisiere Hospital, 2 Rue Ambroise Pare, 75475, Paris Cedex 10, France
pierre.marie@inserm.lrb.ap-hop-paris.fr
SOURCE: Journal of Cellular Biochemistry, (31 January-8 February, 2001) Vol. 81, No. 1, pp. 68-81. print.
CODEN: JCEBD5. ISSN: 0730-2312.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 25 Apr 2001
Last Updated on STN: 18 Feb 2002

AB Fibroblast growth factors (FGFs) are important factors regulating osteogenesis. However, the early mechanisms and signaling pathways involved in FGF actions in osteoblasts are unknown. We investigated the effects of FGF-2 on cell-cell adhesion and cadherin expression and the underlying signaling pathways in immortalized human neonatal calvaria (IHNC) cells. These cells express E- and N-cadherins, as shown by immunocytochemical and Western blot analyses. rhFGF-2 increased cell-cell adhesion at 24-72 h, as measured in a cell aggregation assay, and this effect was blocked by specific neutralizing anti-N-cadherin, but not anti-E-cadherin antibodies. Accordingly, ELISA and Western blot analyses showed that rhFGF-2 (10-100 ng/ml) dose dependently increased N-cadherin but not E-cadherin protein levels. RT-PCR analysis showed that rhFGF-2 transiently increased N-cadherin mRNA levels in IHNC cells. The RNA polymerase II inhibitor 5,6-dichloro-1-beta-D-ribofuranosyl benzimidazole prevented the rhFGF-2-induced up-regulation of N-cadherin mRNA, suggesting that transcription is necessary for this effect. Analysis of signaling molecules showed evidence that PLCgamma-PKC, Src, Erk 1/2 and p38 MAPK pathways are activated by rhFGF-2 in IHNC cells. The selective PKC inhibitors calphostin C, Ro-31-8220, Go6976 and Go6983 abrogated the stimulatory effect of rhFGF-2 on N-cadherin mRNA levels. The src-family tyrosine kinase inhibitor PP1 also blocked rhFGF-2-promoted N-cadherin expression. In contrast, the p38 MAP kinase inhibitor SB 203580 or the MEK inhibitor PD98059 had no effect on rhFGF-2-induced N-cadherin mRNA levels. Our data indicate that FGF-2 increases N-cadherin expression and function in human calvaria osteoblasts via activation of PKC and src-kinase pathways. This study identifies N-cadherin as a previously unrecognized target gene for FGF-2 signaling pathway that regulates cell-cell adhesion in human osteoblasts.

L8 ANSWER 41 OF 45 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN
ACCESSION NUMBER: 2000:290558 BIOSIS <<LOGINID::20090203>>
DOCUMENT NUMBER: PREV200000290558
TITLE: Benzimidazoles for inhibiting protein tyrosine kinase mediated cellular proliferation.
AUTHOR(S): Boschelli, Diane Harris [Inventor, Reprint author]; Denny, William Alexander [Inventor]; Doherty, Annette Marian [Inventor]; Hamby, James Marino [Inventor]; Khatana, Sonya Shah [Inventor]; Kramer, James Bernard [Inventor]; Palmer, Brian Desmond [Inventor]; Showalter, Howard Daniel Hollis [Inventor]
CORPORATE SOURCE: Ann Arbor, MI, USA
ASSIGNEE: Warner-Lambert Company, Monaco, Monaco
PATENT INFORMATION: US 5990146 19991123
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Nov. 23, 1999) Vol. 1228, No. 4. e-file.
CODEN: OGUPE7. ISSN: 0098-1133.

DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 6 Jul 2000
Last Updated on STN: 7 Jan 2002

AB Benzimidazoles of Formula I below are inhibitors of protein tyrosine kinases, and are useful in treating cellular proliferation. ##STR1## The compounds are especially useful in treating cancer, atherosclerosis, restenosis, and psoriasis.

L8 ANSWER 42 OF 45 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN

ACCESSION NUMBER: 2000:40806 BIOSIS <<LOGINID::20090203>>
DOCUMENT NUMBER: PREV200000040806
TITLE: A novel and expedient approach to new heterocycles containing benzothiophene, benzothieno(2,3-d)pyrimidine and coumarin moieties.
AUTHOR(S): Bilokin, Yaroslav V. [Reprint author]; Vasylyev, Maksym V.; Branytska, Olena V.; Kovalenko, Sergiy M.; Chernykh, Valentyn P.
CORPORATE SOURCE: Department of Organic Chemistry, Weizmann Institute of Science, Rehovot, 76100, Israel
SOURCE: Tetrahedron, (Nov. 26, 1999) Vol. 55, No. 48, pp. 13757-13766. print.
CODEN: TETRAB. ISSN: 0040-4020.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 19 Jan 2000
Last Updated on STN: 31 Dec 2001

AB In order to obtain potent protein-tyrosine kinase inhibitors, a novel and versatile method for synthesis of heterocyclic compounds 4a-d and 5a-c comprising 2-imino-2H-1-benzopyran, tetrahydrobenzo(b)thiophene, and carboxamide/1H-benzimidazole fragments has been developed. This method was based on the reactions of 2-imino-2H-1-benzopyrans 1a,b and 2 with 2-amino-4,5,6,7-tetrahydrobenzo(b)thiophenes 3a-c in glacial acetic acid. Furthermore, new heterocycles 8a,b with tetrahydrobenzo(4,5)thieno(2,3-d)pyrimidine and coumarin moieties have been synthesized via a rearrangement of the corresponding 2-(tetrahydrobenzo(b)thien-2-yl)imino-2H-1-benzopyran-3-carboxamides 4a,b.

L8 ANSWER 43 OF 45 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN

ACCESSION NUMBER: 1999:439504 BIOSIS <<LOGINID::20090203>>
DOCUMENT NUMBER: PREV199900439504
TITLE: Signal transduction-mediated CYP1A1 induction by omeprazole in human HepG2 cells.
AUTHOR(S): Kikuchi, H. [Reprint author]; Hossain, A.
CORPORATE SOURCE: Institute of Development, Aging and Cancer, Tohoku University, 4-1 Seiryomachi, Aoba-ku, Sendai, 980-8575, Japan
SOURCE: Experimental and Toxicologic Pathology, (July, 1999) Vol. 51, No. 4-5, pp. 342-346. print.
CODEN: ETPAEK. ISSN: 0940-2993.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 18 Oct 1999
Last Updated on STN: 18 Oct 1999

AB Benzimidazole compounds, such as omeprazole and thiabendazole, are a different type of CYP1A1-inducer from Ah receptor-ligands, such as 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) and 3-methylcholanthrene. In HepG2 cells, the commonly used tyrosine kinase-

inhibitors, herbimycin-A and a series of tyrphostins, inhibited the induction of CYP1A1 produced by treatment with TCDD. Genistein, another type of tyrosine kinase inhibitor, inhibited the induction of CYP1A1 whether it was produced by omeprazole or TCDD; however, this inhibition was caused by a dual effect of genistein, that is an anti-tyrosine kinase and an anti-topoisomerase I effect. An antagonist of Ah receptor, 3'-methoxy-4'-aminoflavone (1 muM), did not inhibit the induction of CYP1A1 produced in HepG2 cells by omeprazole or alpha-naphthoflavone (50 muM), but this antagonist did inhibit that produced by TCDD. Thus, omeprazole appears to induce CYP1A1 by initiating a protein tyrosine kinase-mediated signal transduction pathway, a different pathway from that initiated by TCDD.

L8 ANSWER 44 OF 45 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN

ACCESSION NUMBER: 1999:66551 BIOSIS <<LOGINID::20090203>>
DOCUMENT NUMBER: PREV199900066551
TITLE: BDNF-dependent enhancement of exocytosis in cultured cortical neurons requires translation but not transcription.
AUTHOR(S): Bradley, John; Sporns, Olaf
CORPORATE SOURCE: Neurosci. Inst., 10640 John Jay Hopkins Drive, San Diego, CA 92121, USA
SOURCE: Brain Research, (Jan. 2, 1999) Vol. 815, No. 1, pp. 140-149. print.
CODEN: BRREAP. ISSN: 0006-8993.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 16 Feb 1999
Last Updated on STN: 16 Feb 1999

AB Neurotrophic factors, such as brain-derived neurotrophic factor (BDNF), are involved in acute modulation of synaptic plasticity. Different modes of action of BDNF have been described with time courses ranging from seconds to hours, but the sequence of cellular processes responsible for BDNF-dependent modulation of synaptic plasticity is unknown. We have used optical imaging of the styryl dye, FM1-43, which selectively labels synaptic vesicles, to investigate potential presynaptic effects of BDNF. Addition of BDNF to cultured cortical neurons for 3 h produced a significant enhancement of exocytosis upon modest depolarization. BDNF had no effect on exocytosis either immediately or after incubation for 30 min. BDNF-dependent enhancement of exocytosis was blocked by the tyrosine kinase inhibitor, K252a, but not by K252b, consistent with signalling via the TrkB receptor. Having demonstrated that the BDNF-dependent enhancement of synaptic vesicle release was present only after 1 h, we investigated whether de novo gene transcription and/or protein synthesis were involved. Addition of the inhibitors of RNA synthesis, actinomycin D, or 5,6-dichloro-1-beta-D-ribofuranosyl benzimidazole (DRB), did not affect the enhancement of exocytosis produced by BDNF. However, the effect of BDNF was blocked by the inhibitors of translation, cycloheximide or anisomycin. Our results indicate a rapid BDNF-dependent enhancement of neurotransmitter release that requires translation but not transcription.

L8 ANSWER 45 OF 45 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN

ACCESSION NUMBER: 1998:501175 BIOSIS <<LOGINID::20090203>>
DOCUMENT NUMBER: PREV199800501175
TITLE: Induction of cytochrome P-450 1A1 by omeprazole in human HepG2 cells is protein tyrosine kinase-dependent and is not inhibited by alpha-naphthoflavone.
AUTHOR(S): Kikuchi, Hideaki [Reprint author]; Hossain, Anwar; Yoshida,

Hiroyuki; Kobayashi, Shunsuke
CORPORATE SOURCE: Dep. Mol. Genetics, Res. Inst. Dev. Aging Cancer, Tohoku Univ., Sendai 980-8575, Japan
SOURCE: Archives of Biochemistry and Biophysics, (Oct. 15, 1998) Vol. 358, No. 2, pp. 351-358. print.
CODEN: ABBIA4. ISSN: 0003-9861.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 18 Nov 1998
Last Updated on STN: 18 Nov 1998

AB Benzimidazole compounds, such as omeprazole and thiabendazole, are a different type of CYP1A1 inducer from Ah receptor-ligands, such as TCDD (2,3,7,8-tetrachlorodibenzo-p-dioxin) and 3-methylcholanthrene. In HepG2 cells, the commonly used tyrosine kinase inhibitors, herbimycin-A and a series of tyrphostins, inhibited the induction of CYP1A1 produced by treatment with TCDD. Genistein, another type of tyrosine kinase inhibitor, inhibited the induction of CYP1A1 whether it was produced by omeprazole or TCDD; however, this inhibition was caused by a dual effect of genistein, that is an anti-tyrosine kinase and an anti-topoisomerase I effect. An antagonist of Ah receptor, alpha-naphthoflavone (0.1-10 muM), and 3'-methoxy-4'-aminoflavone (1 muM), did not inhibit the induction of CYP1A1 produced in HepG2 cells by omeprazole, but both of them did inhibit that produced by TCDD. In one of a number of human lung tumor cell lines, S6T, the inducibility of CYP1A1 was high by TCDD, whereas the inducibility by omeprazole was low. Thus, omeprazole appears to induce CYP1A1 by initiating a protein tyrosine kinase-mediated signal transduction pathway, a different pathway from that inhibited by TCDD.

=> d 30-39 ibib abs

L8 ANSWER 30 OF 45 USPATFULL on STN
ACCESSION NUMBER: 2007:107559 USPATFULL <<LOGINID::20090203>>
TITLE: Benzimidazole carboxamides as raf kinase inhibitors
INVENTOR(S): Buchstaller, Hans-Peter, Griesheim, GERMANY, FEDERAL REPUBLIC OF
Wiesner, Matthias, Seeheim-Jugenheim, GERMANY, FEDERAL REPUBLIC OF
Zenke, Frank, Darmstadt, GERMANY, FEDERAL REPUBLIC OF
Amendt, Christiane, Darmstadt, GERMANY, FEDERAL REPUBLIC OF
Grell, Matthias, Darmstadt, GERMANY, FEDERAL REPUBLIC OF
Sirrenberg, Christian, Darmstadt, GERMANY, FEDERAL REPUBLIC OF
PATENT ASSIGNEE(S): MERCK PATENT GmbH, Darmstadt, GERMANY, FEDERAL REPUBLIC OF, 64293 (non-U.S. corporation)

	NUMBER	KIND	DATE		
PATENT INFORMATION:	US 20070093532	A1	20070426		
APPLICATION INFO.:	US 2004-564184	A1	20040611	(10)	<--
	WO 2004-EP6337		20040611		
			20060807	PCT 371 date	

	NUMBER	DATE	
PRIORITY INFORMATION:	EP 2003-15583	20030711	<--

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: HELLER EHRMAN LLP, 1717 RHODE ISLAND AVE, NW, WASHINGTON, DC, 20036-3001, US
NUMBER OF CLAIMS: 31
EXEMPLARY CLAIM: 1
LINE COUNT: 4338
AB The present invention relates to benzimidazole carboxamides of formula (I), the use of the compounds of formula (I) as inhibitors of as inhibitors of one or more kinases, the use of the compounds of formula (I) for the manufacture of a pharmaceutical composition and a method of treatment, comprising administering said pharmaceutical composition to a patient. Accordingly, the compound of Formula (I) or a pharmaceutically acceptable salt thereof is administered for the treatment of diseases mediated by one or more kinase phathways, preferably by the raf kinase pathway, especially cancers. ##STR1##

L8 ANSWER 31 OF 45 USPATFULL on STN
ACCESSION NUMBER: 2007:76253 USPATFULL <<LOGINID::20090203>>
TITLE: Benzylbenzimidazolyl derivatives
INVENTOR(S): Stahle, Wolfgang, Ingelheim, GERMANY, FEDERAL REPUBLIC OF
Jonczyk, Alfred, Darmstadt, GERMANY, FEDERAL REPUBLIC OF
Rautenberg, Wilfried, Reinheim, GERMANY, FEDERAL REPUBLIC OF

	NUMBER	KIND	DATE		
PATENT INFORMATION:	US 20070066606	A1	20070322		
APPLICATION INFO.:	US 2004-571587	A1	20040817	(10)	<--
	WO 2004-EP9205		20040817		<--
			20060310	PCT 371 date	

	NUMBER	DATE	
PRIORITY INFORMATION:	DE 2003-10342503	20030912	<--

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON BLVD., SUITE 1400, ARLINGTON, VA, 22201, US
NUMBER OF CLAIMS: 32
EXEMPLARY CLAIM: 1
LINE COUNT: 1817
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Novel benzyl-benzimidazolyl derivatives as inhibitors of tyrosine kinases, particularly TIE-2, VEGFR, PDGFR, FGFR and/or FLT/KDR, for the treatment of tumors, according to formula (I), wherein the radicals R.sup.1, R.sup.2, r and s are defined according to Claim (1). ##STR1##

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 32 OF 45 USPATFULL on STN
ACCESSION NUMBER: 2007:12145 USPATFULL <<LOGINID::20090203>>
TITLE: Benzimidazole derivatives as raf kinase inhibitors
INVENTOR(S): Buchstaller, Hans-Peter, Darmstadt, GERMANY, FEDERAL REPUBLIC OF
Finsinger, Dirk, Darmstadt, GERMANY, FEDERAL REPUBLIC OF

Wiesner, Matthias, Darmstadt, GERMANY, FEDERAL REPUBLIC OF
Burgdorf, Lars Thore, Darmstadt, GERMANY, FEDERAL REPUBLIC OF
Amendt, Chriatiane, Darmstadt, GERMANY, FEDERAL REPUBLIC OF
Grell, Matthias, Darmstadt, GERMANY, FEDERAL REPUBLIC OF
Sirrenberg, Chirstian, Darmstadt, GERMANY, FEDERAL REPUBLIC OF
Zenke, Frank, Darmstadt, GERMANY, FEDERAL REPUBLIC OF

PATENT ASSIGNEE(S): MERCK PATENT GMBH, Darmstadt, GERMANY, FEDERAL REPUBLIC OF (non-U.S. corporation)

	NUMBER	KIND	DATE		
PATENT INFORMATION:	US 20070010560	A1	20070111		
APPLICATION INFO.:	US 2004-564185	A1	20040615	(10)	<--
	WO 2004-EP6419		20040615		
			20060807	PCT 371 date	

	NUMBER	DATE	
PRIORITY INFORMATION:	EP 2003-15582	20030711	<--

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: HELLER EHRMAN WHITE & MCAULIFFE LLP, 1717 RHODE ISLAND AVE, NW, WASHINGTON, DC, 20036-3001, US
NUMBER OF CLAIMS: 31
EXEMPLARY CLAIM: 1
LINE COUNT: 3390
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to benzimidazole derivatives of formula I, the use of the compounds of formula I as inhibitors of one or more kinases, the use of the compounds of formula I for the manufacture of a pharmaceutical composition and a method of treatment, comprising administering said pharmaceutical composition to a patient. Accordingly, the compound of Formula I or a pharmaceutically acceptable salt thereof is administered for the treatment of diseases mediated by one or more kinase pathways, preferably by the raf kinase pathway, especially cancers, [FORMULA]

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 33 OF 45 USPATFULL on STN
ACCESSION NUMBER: 2005:63613 USPATFULL <<LOGINID::20090203>>
TITLE: Benzimidazole C-2 heterocycles as kinase inhibitors
INVENTOR(S): Beaulieu, Francis, LaPrairie, CANADA
Marinier, Anne, Kirkland, CANADA
Ouellet, Carl, Boucherville, CANADA
Roy, Stephan, St. Lambert, CANADA
Wittman, Mark D., Wallingford, CT, UNITED STATES

	NUMBER	KIND	DATE		
PATENT INFORMATION:	US 20050054655	A1	20050310		
	US 7312215	B2	20071225		
APPLICATION INFO.:	US 2004-894938	A1	20040720	(10)	<--

	NUMBER	DATE

PRIORITY INFORMATION: US 2003-490889P 20030729 (60) <--
DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: STEPHEN B. DAVIS, BRISTOL-MYERS SQUIBB COMPANY, PATENT DEPARTMENT, P O BOX 4000, PRINCETON, NJ, 08543-4000
NUMBER OF CLAIMS: 14
EXEMPLARY CLAIM: 1
LINE COUNT: 1469
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Benzimidazole derivatives having the general formula I
##STR1##

are provided. These compounds are useful as tyrosine kinase inhibitors, especially for the treatment of cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 34 OF 45 USPATFULL on STN
ACCESSION NUMBER: 2001:55964 USPATFULL <<LOGINID::20090203>>
TITLE: Benzimidazoles for inhibiting protein tyrosine kinase mediated cellular proliferation
INVENTOR(S): Boschelli, Diane Harris, New City, NY, United States
Denny, William Alexander, Pakuranga, New Zealand
Doherty, Annette Marian, Paris, France
Hamby, James Marino, Ann Arbor, MI, United States
Khatana, Sonya Shah, Leawood, KS, United States
Kramer, James Bernard, Sylvania, OH, United States
Palmer, Brian Desmond, Glendene, New Zealand
Showalter, Howard Daniel Hollis, Ann Arbor, MI, United States
PATENT ASSIGNEE(S): Warner-Lambert Company, Morris Plains, NJ, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6218388	B1	20010417	<--
APPLICATION INFO.:	US 1999-459011		19991210 (9)	<--

RELATED APPLN. INFO.: Division of Ser. No. US 1999-408630, filed on 30 Sep 1999 Division of Ser. No. US 1998-135470, filed on 17 Aug 1998, now patented, Pat. No. US 5990146
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Stockton, Laura L.
LEGAL REPRESENTATIVE: Atkins, Michael J.
NUMBER OF CLAIMS: 7
EXEMPLARY CLAIM: 1
LINE COUNT: 2593
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Benzimidazoles of Formula I below are inhibitors of protein tyrosine kinases, and are useful in treating cellular proliferation. ##STR1##

The compounds are especially useful in treating cancer, atherosclerosis, restenosis, and psoriasis.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 35 OF 45 USPATFULL on STN
ACCESSION NUMBER: 1999:151249 USPATFULL <<LOGINID::20090203>>
TITLE: Benzimidazoles for inhibiting protein tyrosine kinase

mediated cellular proliferation
INVENTOR(S): Boschelli, Diane Harris, New City, NY, United States
Denny, William Alexander, Pakuranga, New Zealand
Doherty, Annette Marian, Paris, France
Hamby, James Marino, Ann Arbor, MI, United States
Khatana, Sonya Shah, Leawood, KS, United States
Kramer, James Bernard, Sylvania, OH, United States
Palmer, Brian Desmond, Glendene, New Zealand
Showalter, Howard Daniel Hollis, Ann Arbor, MI, United States
PATENT ASSIGNEE(S): Warner-Lambert Company, Morris Plains, NJ, United States (U.S. corporation)

	NUMBER	KIND	DATE		
PATENT INFORMATION:	US 5990146		19991123		<--
APPLICATION INFO.:	US 1998-135470		19980817	(9)	<--

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Stockton, Laura L.
LEGAL REPRESENTATIVE: Crissey, Todd M.
NUMBER OF CLAIMS: 9
EXEMPLARY CLAIM: 1
LINE COUNT: 2438
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Benzimidazoles of Formula I below are inhibitors of protein tyrosine kinases, and are useful in treating cellular proliferation. ##STR1## The compounds are especially useful in treating cancer, atherosclerosis, restenosis, and psoriasis.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 36 OF 45 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN
ACCESSION NUMBER: 2004:171711 BIOSIS <<LOGINID::20090203>>
DOCUMENT NUMBER: PREV200400159195
TITLE: The role of protein tyrosine kinases in CYP1A1 induction by omeprazole and thiabendazole in rat hepatocytes.
AUTHOR(S): Lemaire, G. [Reprint Author]; Delescluse, C.; Pralavorio, M.; Ledirac, N.; Lesca, P.; Rahmani, R. [Reprint Author]
CORPORATE SOURCE: Laboratoire de Pharmaco-Toxicologie Cellulaire et Moleculaire, INRA, 06606, B.P. 2078, Antibes, France
lemaireg@yahoo.com; rahmani@antibes.inra.fr
SOURCE: Life Sciences, (March 19 2004) Vol. 74, No. 18, pp. 2265-2278. print.
ISSN: 0024-3205 (ISSN print).
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 24 Mar 2004
Last Updated on STN: 24 Mar 2004
AB Benzimidazoles compounds like omeprazole (OME) and thiabendazole (TBZ) mediate CYP1A1 induction differently from classical aryl hydrocarbon receptor (AhR) ligands, 3-methylcholanthrene (3-MC) and 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). To clarify the involvement of an intracellular signal pathway in CYP1A1 induction by OME and TBZ, the TBZ, OME and 3-MC signal-transducing pathways were compared by using specific protein tyrosine kinase inhibitors in primary culture of rat hepatocytes. The effect of OME and TBZ (75-250 muM) on cytochrome P450 1A1 (CYP1A1) expression was therefore studied in primary cultures of rat hepatocytes after 24 h, 48 h and 72 h of exposure. Both compounds provoked a dose- and time-dependent increase in CYP1A1

(EROD activity, protein and mRNA levels), but OME was less effective at all the concentrations and times tested. The mechanism of benzimidazole-mediated induction of CYP1A1 was investigated by comparison with 3-MC, a prototypical AhR ligand. As expected, OME and TBZ were unable to displace (3H)-TCDD from its binding sites to the AhR in competitive binding studies. Moreover, classic tyrosine kinase inhibitor herbimycin A (HA) inhibited the two benzimidazoles-mediated CYP1A1 inductions, but only partially inhibited the 3-MC-mediated one. Another two tyrosine kinase inhibitors, lavendustin A (LA) and genistein (GEN), had no effect on CYP1A1 induction by benzimidazoles and 3-MC. These results are consistent with the implication of a tyrosine kinase, most probably the Src tyrosine kinase, in the mechanism of CYP1A1 induction in rat hepatocytes.

L8 ANSWER 37 OF 45 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN

ACCESSION NUMBER: 2002:229102 BIOSIS <<LOGINID::20090203>>
DOCUMENT NUMBER: PREV200200229102
TITLE: Inhibitory effect of tyrphostin AG114 on recombinant human protein kinase CK2 holoenzyme.
AUTHOR(S): Liu Xin-Guang [Reprint author]; Liang Nian-Ci
CORPORATE SOURCE: Institute of Biochemistry and Molecular Biology, Guangdong Medical College, Zhanjiang, 524023, China
xgliu@gdmc.edu.cn
SOURCE: Zhongguo Yaolixue Yu Dulixue Zazhi, (February, 2002) Vol. 16, No. 1, pp. 8-14. print.
CODEN: ZYYZEW. ISSN: 1000-3002.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 3 Apr 2002
Last Updated on STN: 10 May 2002

AB AIM: To study the direct effect of tyrphostin AG114 on recombinant human protein kinase CK2 holoenzyme and its kinetics. METHODS: Recombinant human protein kinase CK2 alpha and beta subunits were cloned and expressed by genetic engineering, and purified to homogeneity. The two subunits were mixed at equal molar ratio and reconstituted CK2 holoenzyme, which exerted the maximum biological activity. The CK2 activity was assayed by detecting incorporation of 32P of (gamma-32P) ATP or (gamma-32P) GTP into the substrate in various conditions. RESULTS: The recombinant human CK2 was a second messenger (Ca2+, cAMP and cGMP) independent protein kinase, the characterization and function of the reconstituted holoenzyme were consistent with those of native CK2. AG114 strongly inhibited the holoenzyme activity of recombinant human protein kinase CK2 with an IC50 of 20.8 mumolcntdotL-1, which lay between IC50 of 5,6-dichloro-1-beta-D-ribofuranosyl-benzimidazole (DRB) and N-(2-aminoethyl)-5-chloronaphthalene-1-sulfonamide (A3), known as CK2 special inhibitors. Kinetic studies of AG114 inhibition on recombinant human CK2 showed that the inhibition was mixed competitive with GTP and noncompetitive with casein. CONCLUSION: AG114 not only is an effective inhibitor of protein tyrosine kinases, but also is a novel potent inhibitor of protein kinase CK2. The recombinant human protein kinase CK2 might be used as a molecular target for simpler screening method and development of more effective inhibitors of CK2.

L8 ANSWER 38 OF 45 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN

ACCESSION NUMBER: 2002:163260 BIOSIS <<LOGINID::20090203>>
DOCUMENT NUMBER: PREV200200163260
TITLE: Activity of the TonEBP/OREBP transactivation domain varies directly with extracellular NaCl concentration.

AUTHOR(S): Ferraris, Joan D. [Reprint author]; Williams, Chester K.; Persaud, Prita; Zhang, Zheng; Chen, Ye; Burg, Maurice B.
CORPORATE SOURCE: Laboratory of Kidney and Electrolyte Metabolism, National Heart, Lung, and Blood Institute, National Institutes of Health, 10 Center Drive, MSC 1603, Bethesda, MD, 20892-1603, USA
jdf@helix.nih.gov
SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (January 22, 2002) Vol. 99, No. 2, pp. 739-744. print.
CODEN: PNASA6. ISSN: 0027-8424.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 21 Feb 2002
Last Updated on STN: 26 Feb 2002

AB Hypertonicity-induced binding of the transcription factor TonEBP/OREBP to its cognate DNA element, ORE/TonE, is associated with increased transcription of several osmotically regulated genes. Previously, it was found that hypertonicity rapidly causes nuclear translocation and phosphorylation of TonEBP/OREBP and, more slowly, increases TonEBP/OREBP abundance. Also, the C terminus of TonEBP/OREBP was found to contain a transactivation domain (TAD). We have now tested for tonicity dependence of the TAD activity of the 983 C-terminal amino acids of TonEBP/OREBP. HepG2 cells were cotransfected with a reporter construct and one of several TAD expression vector constructs. The reporter construct contained GAL4 DNA binding elements, a minimal promoter, and the Photinus luciferase gene. TAD expression vectors generate chimeras comprised of the GAL4 DNA binding domain fused to (i) the 983 C-terminal amino acids of TonEBP/OREBP, (ii) 17 glutamine residues, (iii) the TAD of c-Jun, or (iv) no TAD. All TAD-containing chimeras were functional at normal extracellular osmolality (300 mosmol/kg), but the activity only of the chimera containing the 983 C-terminal amino acids of TonEBP/OREBP varied with extracellular NaCl concentration, decreasing by >80% at 200 mosmol/kg and increasing 8-fold at 500 mosmol/kg. The chimera containing the 983 C-terminal amino acids of TonEBP/OREBP was constitutively localized to the nucleus and showed tonicity-dependent posttranslational modification consistent with phosphorylation. The activity at 500 mosmol/kg was reduced by herbimycin, a tyrosine kinase inhibitor and by 5,6-dichloro-1-beta-D-ribofuranosyl-benzimidazole, a protein kinase CK2 inhibitor. Thus, the 983 C-terminal amino acids of TonEBP/OREBP contain a TAD that is regulated osmotically, apparently by tonicity-dependent phosphorylation.

L8 ANSWER 39 OF 45 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN
ACCESSION NUMBER: 2001:468519 BIOSIS <<LOGINID::20090203>>
DOCUMENT NUMBER: PREV200100468519
TITLE: Benzimidazoles for inhibiting protein tyrosine kinase mediated cellular proliferation.
AUTHOR(S): Boschelli, Diane Harris [Inventor]; Denny, William Alexander [Inventor, Reprint author]; Doherty, Annette Marian [Inventor]; Hamby, James Marino [Inventor]; Khatana, Sonya Shah [Inventor]; Kramer, James Bernard [Inventor]; Palmer, Brian Desmond [Inventor]; Showalter, Howard Daniel Hollis [Inventor]
CORPORATE SOURCE: Pakuranga, New Zealand
ASSIGNEE: Warner-Lambert Company
PATENT INFORMATION: US 6218388 20010417
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Apr. 17, 2001) Vol. 1245, No. 3. e-file.

CODEN: OGUPE7. ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 3 Oct 2001
Last Updated on STN: 23 Feb 2002
AB Benzimidazoles of Formula I below are inhibitors of protein tyrosine kinases, and are useful in treating cellular proliferation. ##STR1## The compounds are especially useful in treating cancer, atherosclerosis, restenosis, and psoriasis.

=> remove duplicate
DUPLICATE IS NOT VALID HERE
The DELETE command is used to remove various items stored by the system.

To delete a saved query, saved answer set, saved L-number list, SDI request, batch request, mailing list, or user-defined cluster, format, or search field, enter the name. The name may include ? for left, right, or simultaneous left and right truncation.

Examples:

```
  DELETE BIO?/Q          - delete query names starting with BIO
  DELETE ?DRUG/A         - delete answer set names ending with DRUG
  DELETE ?ELEC?/L        - delete L-number lists containing ELEC
  DELETE ANTICOAG/S      - delete SDI request
  DELETE ENZYME/B        - delete batch request
  DELETE .MYCLUSTER      - delete user-defined cluster
  DELETE .MYFORMAT       - delete user-defined display format
  DELETE .MYFIELD        - delete user-defined search field
  DELETE NAMELIST MYLIST - delete mailing list
```

To delete an ordered document or an offline print, enter its number.

Examples:

```
  DELETE P123001C        - delete print request
  DELETE D134002C        - delete document order request
```

To delete an individual L-number or range of L-numbers, enter the L-number or L-number range. You may also enter DELETE LAST followed by a number, n, to delete the last n L-numbers. RENUMBER or NORENUMBER may also be explicitly specified to override the value of SET RENUMBER.

Examples:

```
  DELETE L21             - delete a single L-number
  DELETE L3-L6           - delete a range of L-numbers
  DELETE LAST 4          - delete the last 4 L-numbers
  DELETE L33-            - delete L33 and any higher L-number
  DELETE -L55            - delete L55 and any lower L-number
  DELETE L2-L6 RENUMBER - delete a range of L-numbers and
                          renumber remaining L-numbers
  DELETE RENUMBER        - renumber L-numbers after deletion of
                          intermediate L-numbers
```

Entire sets of saved items, SDI requests, batch requests, user-defined items, or E-numbers can be deleted.

Examples:

```
  DELETE SAVED/Q - delete all saved queries
  DELETE SAVED/A - delete all saved answer sets
  DELETE SAVED/L - delete all saved L-number lists
  DELETE SAVED   - delete all saved queries, answer sets,
                   and L-number lists
  DELETE SAVED/S - delete all SDI requests
  DELETE SAVED/B - delete all batch requests
  DELETE CLUSTER - delete all user-defined clusters
  DELETE FORMAT  - delete all user-defined display formats
  DELETE FIELD   - delete all user-defined search fields
  DELETE SELECT  - delete all E-numbers
  DELETE HISTORY - delete all L-numbers and restart the
                   session at L1
```

To delete an entire multifile SDI request, enter DELETE and the name of the request. To delete a component from the multifile SDI, enter DELETE and the name of the component.

```
=> remove duplicates
DUPLICATES IS NOT VALID HERE
```
The DELETE command is used to remove various items stored by the system.

To delete a saved query, saved answer set, saved L-number list, SDI request, batch request, mailing list, or user-defined cluster, format, or search field, enter the name. The name may include ? for left, right, or simultaneous left and right truncation.

Examples:

```
  DELETE BIO?/Q          - delete query names starting with BIO
  DELETE ?DRUG/A         - delete answer set names ending with DRUG
  DELETE ?ELEC?/L        - delete L-number lists containing ELEC
  DELETE ANTICOAG/S      - delete SDI request
  DELETE ENZYME/B        - delete batch request
  DELETE .MYCLUSTER      - delete user-defined cluster
  DELETE .MYFORMAT       - delete user-defined display format
  DELETE .MYFIELD        - delete user-defined search field
  DELETE NAMELIST MYLIST - delete mailing list
```

To delete an ordered document or an offline print, enter its number.

Examples:

```
  DELETE P123001C        - delete print request
  DELETE D134002C        - delete document order request
```

To delete an individual L-number or range of L-numbers, enter the L-number or L-number range. You may also enter DELETE LAST followed by a number, n, to delete the last n L-numbers. RENUMBER or NORENUMBER may also be explicitly specified to override the value of SET RENUMBER.

Examples:

```
  DELETE L21            - delete a single L-number
  DELETE L3-L6          - delete a range of L-numbers
```

```
  DELETE LAST 4         - delete the last 4 L-numbers
  DELETE L33-           - delete L33 and any higher L-number
  DELETE -L55           - delete L55 and any lower L-number
  DELETE L2-L6 RENUMBER - delete a range of L-numbers and
                          renumber remaining L-numbers
  DELETE RENUMBER       - renumber L-numbers after deletion of
                          intermediate L-numbers

Entire sets of saved items, SDI requests, batch requests, user-defined
items, or E-numbers can be deleted.

Examples:

  DELETE SAVED/Q - delete all saved queries
  DELETE SAVED/A - delete all saved answer sets
  DELETE SAVED/L - delete all saved L-number lists
  DELETE SAVED   - delete all saved queries, answer sets,
                   and L-number lists
  DELETE SAVED/S - delete all SDI requests
  DELETE SAVED/B - delete all batch requests
  DELETE CLUSTER - delete all user-defined clusters
  DELETE FORMAT  - delete all user-defined display formats
  DELETE FIELD   - delete all user-defined search fields
  DELETE SELECT  - delete all E-numbers
  DELETE HISTORY - delete all L-numbers and restart the
                   session at L1

To delete an entire multifile SDI request, enter DELETE and
the name of the request.  To delete a component from the
multifile SDI, enter DELETE and the name of the component.

=> d 1-29 ibib abs

L8   ANSWER 1 OF 45  CAPLUS  COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER:        2006:340649  CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER:         144:390914
TITLE:                   Preparation of (indazolyl)benzimidazoles and analogs
                         for inhibiting c-ABL
INVENTOR(S):             Jansen, Johanna M.; McBride, Christopher; Renhowe,
                         Paul A.; Shafer, Cynthia
PATENT ASSIGNEE(S):      USA
SOURCE:                  U.S. Pat. Appl. Publ., 243 pp., Cont.-in-part of U.S.
                         Ser. No. 187,967.
                         CODEN: USXXCO
DOCUMENT TYPE:           Patent
LANGUAGE:                English
FAMILY ACC. NUM. COUNT:  2
PATENT INFORMATION:

     PATENT NO.          KIND   DATE        APPLICATION NO.         DATE
     ---------------     ----   --------    --------------------    --------
     US 20060079564       A1    20060413    US 2005-261995          20051027 <--
     US 20030207883       A1    20031106    US 2002-187967          20020702 <--
     US 7064215           B2    20060620
PRIORITY APPLN. INFO.:                      US 2001-302791P     P   20010703 <--
                                            US 2002-187967      A2  20020702 <--
OTHER SOURCE(S):         CASREACT 144:390914; MARPAT 144:390914
GI
```

/ Structure 796 in file .gra /

AB Title compds. I [wherein Z1-Z4 = C or N; R1 = H, F, Cl, Br, etc.; R2 = H, F, Cl, Br, CN, NO2, or (un)substituted CO2H, NH2, CONH2, NHCONH2, etc.; R3 = H, F, Cl, Br, (un)substituted alkoxy, etc.; R4 = H, F, Br, Cl, NO2, etc.; R5 = H, F, Cl, alkyl, etc.; R6, R7 = H, F, Cl, Br, CF3, etc.; R8 = H, F, Cl, alkyl, etc.; R9 = H; R10 = H, alkyl; or R5 is absent if Z1 = N; or R6 is absent if Z2 = N; or R7 is absent if Z3 = N; or R8 is absent if Z4 = N; and tautomers and pharmaceutically acceptable salts thereof] were prepared as tyrosine kinase inhibitors. For example, dimerization of indazole-3-carboxylic acid with POCl3 followed by addition of 1,2-phenylenediamine in toluene gave 3-(1H-benzimidazol -2-yl)-1H-indazole. Exemplary compds. were assays for tyrosine kinase activity in vitro, and the majority displayed an IC50 value of less than 10 μM with respect to VEGFR1, Flk-1, bFGF, Tie-2, CHK-1, cdc2, GSK-3, NEK-2, c-ABL and PDGF.

L8 ANSWER 2 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:1240986 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 144:22906
TITLE: Preparation of fused heterocycle kinase inhibitors for treatment of protein tyrosine kinase-related diseases
INVENTOR(S): Cusack, Kevin; Salmeron-Garcia, Jose-Andres; Gordon, Thomas D.; Barberis, Claude E.; Allen, Hamish J.; Bischoff, Agniezka K.; Ericsson, Anna M.; Friedman, Michael M.; George, Dawn M.; Roth, Gregory P.; Talanian, Robert V.; Thomas, Christine; Wallace, Grier A.; Wishart, Neil; Yu, Zhengtian
PATENT ASSIGNEE(S): Abbott Laboratories, USA
SOURCE: PCT Int. Appl., 362 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005110410	A2	20051124	WO 2005-US16903	20050513 <--
WO 2005110410	A3	20070329		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2566158	A1	20051124	CA 2005-2566158	20050513 <--
US 20060074102	A1	20060406	US 2005-129624	20050513 <--
EP 1753428	A2	20070221	EP 2005-778736	20050513 <--
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, LV, MK, YU				
JP 2007537296	T	20071220	JP 2007-513433	20050513 <--

MX 2006013250 A 20070228 MX 2006-13250 20061114 <--
PRIORITY APPLN. INFO.: US 2004-571281P P 20040514 <--
WO 2005-US16903 W 20050513
OTHER SOURCE(S): MARPAT 144:22906
GI

/ Structure 797 in file .gra /

AB The invention is related to the preparation of fused heterocycles of formula I [A, B = independently N, S, O, a bond, etc.; D = C, N, S, O, C:C; U, V, W = independently CH and derivs., N; Y = a bond, CONH2 and derivs., SO, etc.; Z = H, halo, CN, etc.; X1 = a bond, halo, O, SO, NHSO2, etc.; R1 = a bond, (un)substituted benzofuranyl, benzimidazolyl, pyrrolyl, etc.; when R1 is not a bond, then X2 = a bond, O,S, NHCO and derivs., aliphatic group, etc.; or when R1 = a bond, then X2 = a bond and R2 is not a bond; R2 = a bond or (un)substituted benzoxazolyl, Ph, etc.; with provisos; and with the exception of certain compds.], and their pharmaceutically acceptable salts as inhibitors of kinases, particularly COT or MK2 kinases. The invention is also related to the use of certain compds. I as inhibitors of angiogenic receptor tyrosine kinases. Thus, reacting 4-(3-aminophenyl)thieno[2,3-c]pyridine-2-carboxamide with cyclopropanecarboxaldehyde gave thienopyridine II. All compds. I significantly inhibit either COT or MK2 at concns. of 50 μM or below.

L8 ANSWER 3 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:409508 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 142:463726
TITLE: Preparation of benzimidazolyls as TIE-2 tyrosine kinase inhibitors for the treatment of tumors
INVENTOR(S): Staehle, Wolfgang; Buchstaller, Hans-Peter; Jonczyk, Alfred; Rautenberg, Wilfried
PATENT ASSIGNEE(S): Merck Patent G.m.b.H., Germany
SOURCE: PCT Int. Appl., 105 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005042520	A1	20050512	WO 2004-EP11550	20041014 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10349587	A1	20050525	DE 2003-10349587	20031024 <--
AU 2004285643	A1	20050512	AU 2004-285643	20041014 <--
CA 2543346	A1	20050512	CA 2004-2543346	20041014 <--
EP 1675849	A1	20060705	EP 2004-765962	20041014 <--

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK

CN 1871232	A	20061129	CN 2004-80031334		20041014	<--
BR 2004015760	A	20061219	BR 2004-15760		20041014	<--
JP 2007509096	T	20070412	JP 2006-536006		20041014	<--
MX 2006004405	A	20060614	MX 2006-4405		20060420	<--
KR 2006123124	A	20061201	KR 2006-707939		20060424	<--
US 20070066660	A1	20070322	US 2006-577033		20060424	<--
US 7470702	B2	20081230				
IN 2006KN01239	A	20070427	IN 2006-KN1239		20060511	<--
PRIORITY APPLN. INFO.:			DE 2003-10349587	A	20031024	<--
			WO 2004-EP11550	W	20041014	<--

OTHER SOURCE(S): MARPAT 142:463726
GI

/ Structure 798 in file .gra /

AB Title compds. I [R = (R1)m; R1 = (R1')p; R2 = (R2')q; m, p, q = 0-4; R1, R1' = Halo, OH, CN, etc.; L = CH2, CH2CH2, O, etc.; R2' = halo, OH, CO2H, etc.; E, G, M, Q, U = C or N atom with provisos] and their pharmaceutically acceptable salts and formulations were prepared For example, condensation of 4-(4-isothiocyanatophenoxy)puridine and 4-nitro-1,2-phenylenediamine afforded claimed benzimidazol II. In TIE-2 tyrosine kinase inhibition assays, 3-examples of compds. I exhibited IC50 values ranging from 5-40 + 10-7 mol/L. Compds. I are claimed to be useful as tyrosine kinase inhibitors in the treatment of tumors.

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 4 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:345863 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 142:411345
TITLE: Preparation of 1,3-benzoxazols as TIE-2 kinase inhibitors
INVENTOR(S): Staehle, Wolfgang; Jonczyk, Alfred; Rautenberg, Wilfried
PATENT ASSIGNEE(S): Merck Patent G.m.b.H., Germany
SOURCE: Ger. Offen., 36 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
DE 10344223	A1	20050421	DE 2003-10344223	20030924	<--
AU 2004281879	A1	20050428	AU 2004-281879	20040901	<--
CA 2539767	A1	20050428	CA 2004-2539767	20040901	<--
WO 2005037829	A1	20050428	WO 2004-EP9743	20040901	<--

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

EP 1664039 A1 20060607 EP 2004-764704 20040901 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK

JP 2007506687 T 20070322 JP 2006-527292 20040901 <--
US 20060281762 A1 20061214 US 2006-573176 20060323 <--
PRIORITY APPLN. INFO.: DE 2003-10344223 A 20030924 <--
WO 2004-EP9743 W 20040901 <--
OTHER SOURCE(S): MARPAT 142:411345
GI

/ Structure 799 in file .gra /

AB Title compds. I [A = (R1)n; B = (R2)m; C = X-Y-(R3)p; R1, R2, R3 = halo, CN, NO2, etc.; X = O, S, SO2, etc.; n, m, p = 1-4; A = (un)substituted cyclic alkyl with provisos]and their pharmaceutically acceptable salts and formulations were prepared For example, condensation of 4-(pyridin-4-ylsulfanyl)phenylamine and 5-chloro-7-nitro-3H-benzoxazol-2-thione, e.g., prepared from diimidazol-1-ylmethanthione and 2-amino-4-chloro-6-nitrophenol, afforded claimed benzoxazol II. In a TIE-2 kinase inhibition assay, the IC50 value of benzoxazol II was 310 nM. Compds. I are claimed to be useful as TIE-2, VEGFR and the Raf kinase inhibitors.

L8 ANSWER 5 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:216801 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 142:298106
TITLE: Preparation of benzimidazole derivatives as tyrosine kinase inhibitors
INVENTOR(S): Beaulieu, Francis; Marinier, Anne; Ouellet, Carl; Roy, Stephan; Wittman, Mark D.
PATENT ASSIGNEE(S): Bristol-Myers Squibb Company, USA
SOURCE: PCT Int. Appl., 54 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005021510	A2	20050310	WO 2004-US24474	20040728 <--
WO 2005021510	A3	20050414		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 20050054655 A1 20050310 US 2004-894938 20040720 <--

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     US 7312215           B2    20071225
     EP 1651611           A2    20060503    EP 2004-786135         20040728 <--
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR
PRIORITY APPLN. INFO.:                      US 2003-490889P     P  20030729 <--
                                            WO 2004-US24474     W  20040728 <--
OTHER SOURCE(S):         CASREACT 142:298106; MARPAT 142:298106
GI



/ Structure 800 in file .gra /


AB   Title compds. represented by the formula I [wherein A = C:O, alkyl, NR7 or
     a direct bond; B = C:O or NR7 provided A and B are not both NR7; R1-R7 =
     independently H, (cyclo)alkyl, halo, amino, etc.] were prepared as tyrosine
     kinase inhibitors (no data).  For example, II was given in a multi-step
     synthesis starting from the reaction of 4-bromo-2-methyl-6-nitroaniline
     with morpholine.  I and their pharmaceutical compns. are useful as
     tyrosine kinase inhibitors, especially for the treatment of cancer (no data).
REFERENCE COUNT:         1     THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8   ANSWER 6 OF 45  CAPLUS  COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER:        2005:55062  CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER:         142:134604
TITLE:                   Preparation of benzimidazole amides as
                         raf kinase inhibitors
INVENTOR(S):             Buchstaller, Hans-Peter; Finsinger, Dirk; Wiesner,
                         Matthias; Burgdorf, Lars; Amendt, Christiane; Grell,
                         Matthias; Sirrenberg, Christian; Zenke, Frank
PATENT ASSIGNEE(S):      Merck Patent GmbH, Germany
SOURCE:                  PCT Int. Appl., 145 pp.
                         CODEN: PIXXD2
DOCUMENT TYPE:           Patent
LANGUAGE:                English
FAMILY ACC. NUM. COUNT:  1
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
     ---------------      ----   --------    --------------------    --------
     WO 2005004864         A1    20050120    WO 2004-EP6419          20040615 <--
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
             TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
             EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
             SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
             SN, TD, TG
     AU 2004255403         A1    20050120    AU 2004-255403          20040615 <--
     CA 2531859            A1    20050120    CA 2004-2531859         20040615 <--
     EP 1653951            A1    20060510    EP 2004-739891          20040615 <--
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK
     JP 2007513054         T     20070524    JP 2006-519783          20040615 <--
```

US 20070010560	A1	20070111	US 2006-564185		20060807 <--
PRIORITY APPLN. INFO.:			EP 2003-15582	A	20030711 <--
			WO 2004-EP6419	W	20040615 <--

OTHER SOURCE(S): CASREACT 142:134604; MARPAT 142:134604
GI

/ Structure 801 in file .gra /

AB Title compds. I [R6-7 = H, A, SO2A; A = alkyl, alkenyl, cycloalkyl, etc.; Ar2 = aromatic hydrocarbon; R8-10 = H, A, cycloalkyl, etc.; X = divalent alkyl, etc.; p, n = 0-5; q = 0-4] are prepared For instance, II is prepared from the corresponding 2-aminoimidazole and carboxylic acid (DMF, TBTU, HOBt, i-Pr2NEt). I are raf kinase inhibitors and are useful for the treatment of cancer.

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 7 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:55061 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 142:134603
TITLE: A preparation of benzimidazolecarboxamide derivatives, useful as raf-kinase inhibitors
INVENTOR(S): Buchstaller, Hans-Peter; Wiesner, Matthias; Zenke, Frank; Amendt, Christiane; Grell, Matthias; Sirrenberg, Christian
PATENT ASSIGNEE(S): Merck Patent GmbH, Germany
SOURCE: PCT Int. Appl., 184 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005004863	A1	20050120	WO 2004-EP6337	20040611 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004255402	A1	20050120	AU 2004-255402	20040611 <--
CA 2531856	A1	20050120	CA 2004-2531856	20040611 <--
EP 1643991	A1	20060412	EP 2004-739826	20040611 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
JP 2007506676	T	20070322	JP 2006-519782	20040611 <--
US 20070093532	A1	20070426	US 2006-564184	20060807 <--

PRIORITY APPLN. INFO.:			EP 2003-15583	A	20030711 <--
			WO 2004-EP6337	W	20040611 <--

OTHER SOURCE(S): MARPAT 142:134603
GI

/ Structure 802 in file .gra /

AB The invention relates to a preparation of benzimidazolecarboxamide derivs. of formula I [wherein: R1 is 0 to 5 independent substituents selected from H, cycloalkyl, halogen, CH2-halogen, or (CH2)0-5-CN, etc.; R2 and R3 are independently selected from H, (cyclo)alkyl, alkoxy, or SO2-(cyclo)alkyl, etc.; R4 is 1 to 5 substituted phenyl; Y is O, S, or C(CN)2, etc.], useful as raf-kinase inhibitors . For instance, benzimidazolecarboxamide derivative of formula II was prepared via amidation of 5-chlorobenzimidazolecarboxylic acid by 4-(4-pyridinyloxy)phenylamine with a yield of 75%. The preferred compound of the invention are raf-kinase inhibitors and showed IC50 values in the range of 100 μM or below.
REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 8 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2004:756711 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 141:277641
TITLE: Preparation of bicyclic (hetero)aryl- and pyridine-containing diaryl ureas as Raf kinase and angiogenesis inhibitors useful in the treatment of cancer and other disorders
INVENTOR(S): Dumas, Jacques; Boyer, Stephen; Verma, Sharad; Adnane, Lila; Chen, Yuanwei; Lee, Wendy; Phillips, Barton; Smith, Roger A.; Scott, William J.; Burke, Jennifer; Chen, Jianqing; Chen, Zhi; Fan, Jianmei; Miranda, Karl; Raudenbush, Brian; Redman, Aniko; Shao, Jianxing; Su, Ning; Wang, Gan; Yi, Lin; Zhu, Qingming
PATENT ASSIGNEE(S): Bayer Pharmaceuticals Corporation, USA
SOURCE: PCT Int. Appl., 162 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004078748	A2	20040916	WO 2004-US6287	20040301 <--
WO 2004078748	A3	20041111		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2516931	A1	20040916	CA 2004-2516931	20040301 <--
EP 1608639	A2	20051228	EP 2004-716166	20040301 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK				
JP 2006519265	T	20060824	JP 2006-508978	20040301 <--
MX 2005009104	A	20060531	MX 2005-9104	20050826 <--

PRIORITY APPLN. INFO.: US 2003-450348P P 20030228 <--

WO 2004-US6287 W 20040301 <--
OTHER SOURCE(S): MARPAT 141:277641
GI

/ Structure 803 in file .gra /

AB Title compds. I [wherein A = benzimidazolyl, 2,3-dihydro-1H-indolyl, 2,3-dihydro-1H-indenyl, 1H- or 2H-indazolyl, 1,3-benzodioxin-6-yl, quinoxalinyl, etc.; B = (un)substituted Ph, naphthyl, pyridinyl, quinolinyl; L = (CH2)m-D-(CH2)n; m, n = independently 0-4; D = O, C(:O), NH and derivs., NHCO and derivs., S, CONH and derivs.; M = (un)substituted pyridine ring; Q = C(:O)H and derivs., CO2H and derivs., CONH2 and derivs.; and their pharmaceutically acceptable salts, prodrugs, and metabolites] were prepared as Raf kinase inhibitors for treating hyper-proliferative and angiogenesis disorders, alone or in combination with cytotoxic therapies. For example, urea II was prepared from 4-(4-Amino-3-fluorophenoxy)-N-methylpyridine-2-carboxamide (preparation given), triphosgene, 2-aminoquinoxaline, in the presence of DIPEA/anhydrous DMF at 75°. Selected I showed 80% inhibition of c-Raf kinase at 1 μM. Thus, I are useful for treating cancer and other Raf kinase-mediated diseases.

L8 ANSWER 9 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2004:513393 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 141:71544
TITLE: Preparation of substituted benzazoles as Raf kinase inhibitors
INVENTOR(S): Amiri, Payman; Fantl, Wendy; Levine, Barry Haskell; Poon, Daniel J.; Ramurthy, Savithri; Renhowe, Paul A.; Subramanian, Sharadha; Sung, Leonard
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 476 pp., Cont.-in-part of U.S. Pat. Appl. 2004 87,626.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20040122237	A1	20040624	US 2003-675927	20030929 <--
US 20040087626	A1	20040506	US 2003-405945	20030331 <--
US 7071216	B2	20060704		
AU 2004277405	A1	20050414	AU 2004-277405	20040929 <--
CA 2539748	A1	20050414	CA 2004-2539748	20040929 <--
WO 2005032548	A1	20050414	WO 2004-US32161	20040929 <--

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,

SN, TD, TG

EP 1675584	A1	20060705	EP 2004-789345		20040929 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK					
BR 2004014908	A	20061107	BR 2004-14908		20040929 <--
CN 1913884	A	20070214	CN 2004-80032677		20040929 <--
JP 2007507428	T	20070329	JP 2006-528331		20040929 <--
US 20070299039	A1	20071227	US 2005-282939		20051118 <--
MX 2006003435	A	20060620	MX 2006-3435		20060327 <--
JP 2006193533	A	20060727	JP 2006-96143		20060330 <--
KR 2006089232	A	20060808	KR 2006-706470		20060403 <--
IN 2006KN00838	A	20070413	IN 2006-KN838		20060405 <--
PRIORITY APPLN. INFO.:			US 2002-369066P	P	20020329 <--
			US 2003-405945	A2	20030331 <--
			JP 2003-579810	A3	20030331 <--
			US 2003-675927	A	20030929 <--
			WO 2004-US32161	W	20040929 <--

OTHER SOURCE(S): MARPAT 141:71544
GI

/ Structure 804 in file .gra /

AB The title compds. I [wherein X1, X2 = N, NR4, O, S (with provisos); Y = O, S; A1 = (un)substituted alkyl, (hetero)cycloalkyl(alkyl), (hetero)aryl(alkyl), etc.; A2 = (un)substituted heteroaryl; R1 = O, H; R2 = NR5R6, OH; or CR1R2 = (un)substituted heterocycloalkyl, heteroaryl; R3 = H, halo, alkyl, alkoxy; R4 = H, OH, (di)alkylamino, alkyl; R5, R6 = H, (un)substituted (cyclo)alkyl, alkoxyalkyl, aminoalkyl, amidoalkyl, acyl, heterocyclyl, (hetero)aryl, etc.; or R5 and R6 are taken together to form (un)substituted heterocyclyl or heteroaryl; R7 = alkyl; and pharmaceutically acceptable salts, esters, or prodrugs] were prepared as Raf kinase inhibitors. Examples include synthetic methods and phys. data for 1400 compds., as well as descriptions of two Raf kinase bioassays. For instance, 4-amino-3-nitrophenol and (4-chloropyridin-2-yl)-N-methylcarboxamide were coupled using potassium bis(trimethylsilyl)amide and K2CO3 in DMF to give 4-[(4-amino-3-nitrophenyl)oxy]-N-methylpyridine-2-carboxamide. Pd-catalyzed hydrogenation, followed by cyclization with 4-chloro-3-(trifluoromethyl)benzeneisothiocyanate in the presence of 1-ethyl-3-(3-dimethylaminopropyl)carbodiimide•HCl in THF provided the benzimidazole II. One thousand ninety-four compds. inhibited Raf kinase activity with IC50 < 5 μM in a Raf/Mek filtration assay or a biotinylated Raf screen. Thus, I and their pharmaceutical compns., which may comprise at least one addnl. agent, are useful for the treatment of Raf kinase mediated disorders, such as cancer (no data).

L8 ANSWER 10 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER:	2004:310953 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER:	140:321363
TITLE:	Preparation of [(piperazinyl)benzimidazolyl]quinolinones and analogs as tyrosine kinase inhibitors for treatment of cancer
INVENTOR(S):	Velaparthi, Upender; Wittman, Mark D.
PATENT ASSIGNEE(S):	Bristol-Myers Squibb Company, USA
SOURCE:	PCT Int. Appl., 62 pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004030620	A2	20040415	WO 2003-US30669	20030929 <--
WO 2004030620	A3	20040610		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003275282	A1	20040423	AU 2003-275282	20030929 <--
US 20040092514	A1	20040513	US 2003-674098	20030929 <--
US 7232826	B2	20070619		
EP 1545529	A2	20050629	EP 2003-759558	20030929 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				

PRIORITY APPLN. INFO.: US 2002-415066P P 20020930 <--
WO 2003-US30669 W 20030929 <--

OTHER SOURCE(S): MARPAT 140:321363
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. I and II [wherein A, B, D, and E = independently C, N, O, S or a direct bond, provided that not more than one of A, B, D, and E can be a single bond; Y = O or S; W = N, CH, O, and S, provided that when W = O or S, R7 is absent; R1-R7 = independently H, alkyl, alkenyl, alkynyl, (hetero)cycloalkyl, halo, amino(alkyl), (thio)alkoxy, NO2, (hetero)aryl, (thio)alkoxyalkyl, aminoalkyl, (hetero)aralkyl, heterocycloalkylalkyl, CN, CO2R8, CONR9R10, CO2NR11R12, NR13CONR14R15, NR16SO2R17, SO2NR18R19, C(NR20)NR21R22, NHZ, or NHZ-(hetero)aryl; Z = (un)substituted (cyclo)alkyl, (cyclo)alkenyl, or alkynyl, optionally interrupted by CO, CONH, CNOR26, CNNR27, CNNCOR28, or CNNSO2R29; R8-R24 and R26 = independently H, alkyl, alkenyl, alkynyl, cycloalkyl(alkyl), OH, alkoxy, (hetero)aryl, heterocyclyl, heteroarylalkyl, alkyl-R25; R25 = alkenyl, OH, SH, (thio)alkoxy, NH2, (di)alkylamino, (hetero)aryl, CN, halo, heterocyclyl, sulfoxy, sulfonyl, NR27CO2R28, NR29COR30, NR31SO2R32, SO2NR31R32, or CONR33R34; R27-R34 = independently H, or (cyclo)alkyl; and enantiomers, diastereomers, pharmaceutically acceptable salts, hydrates, prodrugs, or solvates thereof] were prepared as tyrosine kinase inhibitors. For example, 1-[4-(3,4-diamino-5-methylphenyl)piperazin-1-yl]ethanone was condensed with 2,4-dichloroquinoline-3-carboxaldehyde in MeOH to give the benzimidazole. Hydrolysis of the chloro group using 4N HCl in dioxane afforded the 2- and 4-quinolinones. Nucleophilic addition of (S)-2-(3-chlorophenyl)-2-hydroxyethylamine using N-methylmorpholine in DMF provided III and IV. Compds. of the invention exhibited kinase activity of <25 μM against one or more of the following kinases: CDK, EMT, FAK, Her1, Her2, IGF, IR, LCK, MET, PDGF, VEGF. Thus, I, II, and their

pharmaceutical compns. are useful as for treatment of cancer and other diseases that can be treated by inhibiting tyrosine kinase enzymes (no data).

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 11 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2004:182584 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 140:235710
TITLE: Preparation of 2-(4-substituted-2-oxo-1,2-dihydropyridin-3-yl)-benzimidazoles as novel tyrosine kinase inhibitors
INVENTOR(S): Wittman, Mark D.; Balasubramanian, Neelakantan; Velaparthi, Upender; Zimmermann, Kurt; Saulnier, Mark G.; Liu, Peiying; Sang, Xiaopeng; Frennesson, David B.; Stoffan, Karen M.; Tarrant, James G.; Marinier, Anne; Roy, Stephan
PATENT ASSIGNEE(S): Bristol-Myers Squibb Co., USA
SOURCE: U.S. Pat. Appl. Publ., 210 pp., Cont.-in-part of U.S. Ser. No. 105,599.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20040044203	A1	20040304	US 2002-263448	20021002 <--
US 7081454	B2	20060725		
WO 2004031401	A2	20040415	WO 2003-US30931	20031001 <--
WO 2004031401	A3	20040729		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003282891	A1	20040423	AU 2003-282891	20031001 <--
EP 1545543	A2	20050629	EP 2003-774510	20031001 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 20060079518	A1	20060413	US 2005-289834	20051130 <--
US 7223757	B2	20070529		

PRIORITY APPLN. INFO.:		
US 2001-279327P	P	20010328 <--
US 2002-105599	A2	20020325 <--
US 2002-263448	A	20021002 <--
WO 2003-US30931	W	20031001 <--

OTHER SOURCE(S): MARPAT 140:235710
GI

/ Structure 805 in file .gra /

AB The title compds. [I; X = N, C, a bond, etc.; Y = O, S; W = N, C, O, S (if W = O or S, then R9 is absent); R1-R9 = H, alkyl, cycloalkyl, etc.] and their pharmaceutically acceptable salts which inhibit tyrosine kinase enzymes thereby making them useful as anti-cancer agents, were prepared Thus, reacting 3-[6-(imidazol-1-yl)-4-methyl-1H-benzimidazol-2-yl]-4-iodo-1H-pyridin-2-one (preparation given) with (S)-(-)-2-phenylglycinol in the presence of N-methylmorpholine in DMF afforded 52% (S)-II. The compds. I showed kinase activity of <25μM against one or more of the following kinases CDK, EMT, FAK, Her1, Her2, IGF, IR, LCK, MET, PDGF, VEGF. The compds. I are also useful for the treatment of other diseases which can be treated by inhibiting tyrosine kinase enzymes.
REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 12 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2004:147756 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 140:296808
TITLE: The role of protein tyrosine kinases in CYP1A1 induction by omeprazole and thiabendazole in rat hepatocytes
AUTHOR(S): Lemaire, G.; Delescluse, C.; Pralavorio, M.; Ledirac, N.; Lesca, P.; Rahmani, R.
CORPORATE SOURCE: Laboratoire de Pharmaco-toxicologie Cellulaire et Moleculaire, INRA, Antibes, 06606, Fr.
SOURCE: Life Sciences (2004), 74(18), 2265-2278
CODEN: LIFSAK; ISSN: 0024-3205
PUBLISHER: Elsevier Science Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Benzimidazoles compds. like omeprazole (OME) and thiabendazole (TBZ) mediate CYP1A1 induction differently from classical aryl hydrocarbon receptor (AhR) ligands, 3-methylcholanthrene (3-MC) and 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). To clarify the involvement of an intracellular signal pathway in CYP1A1 induction by OME and TBZ, the TBZ, OME and 3-MC signal-transducing pathways were compared by using specific protein tyrosine kinase inhibitors in primary culture of rat hepatocytes. The effect of OME and TBZ (75-250 μM) on cytochrome P 450 1A1 (CYP1A1) expression was therefore studied in primary cultures of rat hepatocytes after 24 h, 48 h and 72 h of exposure. Both compds. provoked a dose- and time-dependent increase in CYP1A1 (EROD activity, protein and mRNA levels), but OME was less effective at all the concns. and times tested. The mechanism of benzimidazole-mediated induction of CYP1A1 was investigated by comparison with 3-MC, a prototypical AhR ligand. As expected, OME and TBZ were unable to displace [3H]-TCDD from its binding sites to the AhR in competitive binding studies. Moreover, classic tyrosine kinase inhibitor herbimycin A (HA) inhibited the two benzimidazoles-mediated CYP1A1 inductions, but only partially inhibited the 3-MC-mediated one. Another two tyrosine kinase inhibitors, Lavendustin A (LA) and genistein (GEN), had no effect on CYP1A1 induction by benzimidazoles and 3-MC. These results are consistent with the implication of a tyrosine kinase, most probably the Src tyrosine kinase, in the mechanism of CYP1A1 induction in rat hepatocytes.
REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 13 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2004:143147 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 140:181450

TITLE: Preparation of substituted benzimidazoles as interleukin-2 tyrosine kinase (Itk) inhibitors

INVENTOR(S): Cywin, Charles; Pullen, Steven S.; Roth, Gregory Paul; Snow, Roger John; Fleck, Roman Wolfgang; Takahashi, Hidenori; Winters, Michael; Qiao, Lei; Nemoto, Peter Allen; Moriarity, Kevin J.; Wang, Ji; Bentzien, Joerg; Cook, Brian; Lo, Ho-yin

PATENT ASSIGNEE(S): Boehringer Ingelheim Pharmaceuticals, Inc., USA

SOURCE: PCT Int. Appl., 180 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004014905	A1	20040219	WO 2003-US24024	20030801 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2494942	A1	20040219	CA 2003-2494942	20030801 <--
AU 2003257094	A1	20040225	AU 2003-257094	20030801 <--
EP 1529046	A1	20050511	EP 2003-784864	20030801 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 20050203158	A1	20050915	US 2003-632888	20030801 <--
US 7138420	B2	20061121		
JP 2005536533	T	20051202	JP 2004-527696	20030801 <--

PRIORITY APPLN. INFO.:
US 2002-402009P P 20020808 <--
WO 2003-US24024 W 20030801 <--

OTHER SOURCE(S): MARPAT 140:181450

GI

/ Structure 806 in file .gra /

AB Title compds. I [R1 = H, alkyl; R2 = (hetero)aryl; R3 = alkyl; R4 = 5-/6-position of benzimidazole alkyl(amino, amido, etc.); R5 = H, alkyl, alkoxy, halo; X = O, S] are prepared For instance, cyclohexanecarboxylic acid N-[4-fluoro-3-nitrophenyl]amide (preparation given) is reacted with β-alanine amide•HCl (DMSO, Et3N, 80°, 16 h) to give the aryl substitution product; this intermediate is reduced (EtOH, NH4OCHO, Pd/C) to the corresponding aniline and converted to the 2-aminobenzimidazole (EtOH, BrCN). This is acylated with 2-thiophenecarbonyl chloride (pyridine) to give II. I inhibit Itk kinase and are therefore useful for treating diseases and pathol. conditions involving inflammation, immunol. disorders and allergic disorders.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 14 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2003:511153 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 139:69281
TITLE: Preparation of alkynyl thienopyrimidines as protein tyrosine kinase inhibitors useful against cancer and other disorders
INVENTOR(S): Caferro, Thomas R.; Chamberlain, Stanley Dawes; Donaldson, Kelly Horne; Harris, Philip Anthony; Gaul, Michael David; Uehling, David Edward; Vanderwall, Dana Edward
PATENT ASSIGNEE(S): Smithkline Beecham Corporation, USA
SOURCE: PCT Int. Appl., 240 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2003053446	A1	20030703	WO 2002-US39872		20021213 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
AU 2002357193	A1	20030709	AU 2002-357193		20021213 <--
EP 1463507	A1	20041006	EP 2002-805582		20021213 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK					
JP 2005516023	T	20050602	JP 2003-554203		20021213 <--
US 20050009845	A1	20050113	US 2004-499247		20040617 <--
PRIORITY APPLN. INFO.:			US 2001-342207P	P	20011219 <--
			WO 2002-US39872	W	20021213 <--

OTHER SOURCE(S): MARPAT 139:69281
GI

/ Structure 807 in file .gra /

AB The present invention relates to alkynyl thienopyrimidines (shown as I; variables defined below; e.g. N-(2-benzyl-1H-benzimidazol-5-yl)-6-ethynylthieno[3,2-d]pyrimidin-4-amine), salts thereof, as well as use and preparation of the same. These compds. are inhibitors of various protein tyrosine kinases (PTKs) of the ErbB family and consequently are useful in the treatment of disorders mediated by aberrant activity of such kinases. Semiquant. pIC50 values for inhibition of ErbB-2 tyrosine kinase and IC50 values for cytotoxicity for HFF as a representative human normal cell line are reported for 11 examples of I. For I: one of A1 and A2 is S and the other is CH; R1 is H or -(CR11R11)n-R5; R2 is H or OC1-6alkyl; R3 = aryl (un)substituted with ≥1 halo, alkynyl, -CF3, -(CH2)nOR4, -(CH2)nSR4, -NO2, C1-6alkyl, -CN, -SO2R9, -(CH2)naryl and -(CH2)nNR9R10, and heteroaryl (un)substituted with ≥1 halo, alkynyl, -CF3, -(CH2)nOR4, -(CH2)nSR4, -NO2,

C1-6alkyl, -CN, -SO2R9, -(CH2)naryl and -(CH2)nNR9R10; n = 0-6; addnl. details are given in the claims. Although the methods of preparation are not claimed, .apprx.120 example prepns. of I are included.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 15 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2003:98039 CAPLUS <<LOGINID::20090203>>

DOCUMENT NUMBER: 138:153534

TITLE: Preparation of benzimidazolyl-substituted quinolinone derivatives and analogs, with inhibitory action against vascular endothelial growth factor receptor tyrosine kinase, and useful as anticancer agents

INVENTOR(S): Renhowe, Paul A.; Pecchi, Sabina; Machajewski, Timothy D.; Shafer, Cynthia M.; Taylor, Clarke; McCrea, William R.; McBride, Christopher; Jazan, Elisa

PATENT ASSIGNEE(S): Chiron Corporation, USA

SOURCE: U.S. Pat. Appl. Publ., 69 pp., Cont.-in-part of U.S. Pat. Appl. 2002 107,392.
CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20030028018	A1	20030206	US 2002-116117	20020405 <--
US 20020107392	A1	20020808	US 2001-951265	20010911 <--
US 6605617	B2	20030812		
EP 1650203	A1	20060426	EP 2005-17665	20010911 <--
EP 1650203	B1	20080220		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
EP 1849782	A1	20071031	EP 2007-11978	20010911 <--
R: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE, TR, AL, LT, LV, MK, RO, SI				
US 20030158224	A1	20030821	US 2002-284017	20021030 <--
US 6774237	B2	20040810		
US 20040006101	A1	20040108	US 2003-387355	20030312 <--
US 6762194	B2	20040713		
CA 2481055	A1	20031023	CA 2003-2481055	20030404 <--
WO 2003087095	A1	20031023	WO 2003-US10463	20030404 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003226275	A1	20031027	AU 2003-226275	20030404 <--
EP 1497287	A1	20050119	EP 2003-746614	20030404 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003008996	A	20050222	BR 2003-8996	20030404 <--
CN 1659165	A	20050824	CN 2003-812909	20030404 <--
JP 2005527587	T	20050915	JP 2003-584051	20030404 <--
NZ 536068	A	20080430	NZ 2003-536068	20030404 <--

SG 143985	A1	20080729	SG 2006-6999		20030404 <--
US 20040097545	A1	20040520	US 2003-613411		20030703 <--
US 6800760	B2	20041005			
US 20050054672	A1	20050310	US 2004-886950		20040708 <--
MX 2004009739	A	20050111	MX 2004-9739		20041005 <--
IN 2004KN01494	A	20070601	IN 2004-KN1494		20041006 <--
NO 2004004776	A	20041207	NO 2004-4776		20041103 <--
US 20050209456	A1	20050922	US 2005-92137		20050329 <--
US 7335774	B2	20080226			
JP 2007191486	A	20070802	JP 2007-62683		20070312 <--
US 20080070906	A1	20080320	US 2007-866296		20071002 <--
PRIORITY APPLN. INFO.:			US 2000-232159P	P	20000911 <--
			US 2001-951265	A2	20010911 <--
			EP 2001-973722	A3	20010911 <--
			EP 2005-17665	A3	20010911 <--
			JP 2002-526851	A3	20010911 <--
			US 2002-116117	A	20020405 <--
			US 2002-284017	A1	20021030 <--
			WO 2003-US10463	W	20030404 <--
			US 2004-886950	A1	20040708 <--

OTHER SOURCE(S): MARPAT 138:153534
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. of formulas I and II are provided [for I: Z = O, S, (un)substituted NH; Y = certain OH derivs., CHO, esters and amides of CO2H, certain NH2 derivs.; R1-R4 = H, halo, cyano, NO2, OH or derivs., NH2 or derivs., (un)substituted amidinyl, guanidinyl, alk(en/yn)yl, aryl, heterocyclyl, CHO, CO2H and esters and amides; R5-R8 = H, halo, NO2, OH or derivs., NH2 or derivs., SH or derivs., cyano, etc.; R9 = H, OH, (un)substituted alkoxy or aryloxy, NH2 or derivs., (un)substituted alkyl or aryl, CHO, alkanoyl, aroyl; for II: A, B, D, E = C or N, with at least one being N; Y = H, OH or derivs., SH or derivs., NH2 or derivs., cyano, various acyl groups, (un)substituted alk(en/yn)yl, aralkyl, heterocycloalkyl, aryl, etc.; R1-R8 = H, halo, NO2, cyano, OH or derivs., NH2 or derivs., acyl, SH or derivs., etc.; R9 = H, OH, (un)substituted alkoxy, aryloxy, NH2 or derivs., aryl, CHO, alkanoyl, aroyl]. Also provided are pharmaceutical formulations including the compds. or their pharmaceutically acceptable salts and a pharmaceutically acceptable carrier, which may be prepared by mixing the compds. or salts with a carrier and water. A disclosed method of treating a patient includes administering a pharmaceutical formulation according to the invention to a patient. Claims include tautomers of the compds., pharmaceutically acceptable salts, and pharmaceutically acceptable salts of the tautomers. I and II are inhibitors of receptor tyrosine kinases, and particularly of vascular endothelial growth factor receptor (VEGFR) tyrosine kinase. As such, they are inhibitors of angiogenesis, and thereby act as anticancer agents. Approx 270 invention compds. are listed, with detailed prepns. given for about 50 compds. Several general preparatory methods are discussed in detail. For instance, cyclocondensation of Et 2-(benzimidazol-2-yl)acetate with the corresponding ortho-amino nitrile (prepns. given), carried out in refluxing ClCH2CH2Cl in the presence of SnCl4, gave the invention quinolinone III. Many compds. I and II had in vitro IC50 values of less than 10 μM with respect to flt-1 (VEGFR1), KDR (VEGFR2) and bFGF kinases (recombinant, expressed in Sf9 insect cells).

L8 ANSWER 16 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2002:777929 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 137:294954
TITLE: Preparation of 2-(4-substituted-2-oxo-1,2-dihydropyridin-3-yl)-benzimidazoles as novel tyrosine kinase inhibitors
INVENTOR(S): Wittman, Mark D.; Balasubramanian, Neelakantan; Velaparthi, Upender; Zimmermann, Kurt; Saulnier, Mark G.; Liu, Peiying; Sang, Xiaopeng; Frennesson, David B.; Stoffan, Karen M.; Tarrant, James G.
PATENT ASSIGNEE(S): Bristol-Myers Squibb Company, USA
SOURCE: PCT Int. Appl., 249 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2002079192	A1	20021010	WO 2002-US9402		20020326 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
CA 2442428	A1	20021010	CA 2002-2442428		20020326 <--
AU 2002254399	A1	20021015	AU 2002-254399		20020326 <--
EP 1381598	A1	20040121	EP 2002-723631		20020326 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR					
EE 200300475	A	20040216	EE 2003-475		20020326 <--
CN 1514833	A	20040721	CN 2002-810516		20020326 <--
JP 2004534010	T	20041111	JP 2002-577817		20020326 <--
BR 2002008373	A	20050222	BR 2002-8373		20020326 <--
HU 2004000323	A2	20051128	HU 2004-323		20020326 <--
MX 2003008690	A	20031212	MX 2003-8690		20030924 <--
ZA 2003007466	A	20050113	ZA 2003-7466		20030925 <--
NO 2003004308	A	20031126	NO 2003-4308		20030926 <--
BG 108206	A	20041130	BG 2003-108206		20030926 <--
IN 2003DN01548	A	20070316	IN 2003-DN1548		20030926 <--
PRIORITY APPLN. INFO.:			US 2001-279327P	P	20010328 <--
			WO 2002-US9402	W	20020326 <--

OTHER SOURCE(S): MARPAT 137:294954
GI

/ Structure 808 in file .gra /

AB The title compds. [I; X = N, C, a bond, etc.; Y = O, S; W = N, C, O, S (if W = O or S, then R9 is absent); R1-R9 = H, alkyl, cycloalkyl, etc.] and their pharmaceutically acceptable salts which inhibit tyrosine kinase enzymes thereby making them useful as anti-cancer agents, were prepared

Thus, reacting 3-[6-(imidazol-1-yl)-4-methyl-1H-benzimidazol-2-yl]-4-iodo-1H-pyridin-2-one (preparation given) with (S)-(-)-2-phenylglycinol in the presence of N-methylmorpholine in DMF afforded 52% (S)-II which showed IC50 of 1.0 μM in cytotoxicity assay (HT-29 human colon tumor cell line). 30 Of the exemplified compds. I showed kinase activity of <25μM against one or more of the following kinases CDK, EMT, FAK, Her1, Her2, IGF, IR, LCK, MET, PDGF, VEGF. The compds. I are also useful for the treatment of other diseases which can be treated by inhibiting tyrosine kinase enzymes.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 17 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2002:308929 CAPLUS <<LOGINID::20090203>>

DOCUMENT NUMBER: 138:112

TITLE: Inhibitory effect of tyrphostin AG114 on recombinant human protein kinase CK2 holoenzyme

AUTHOR(S): Liu, Xinguang; Liang, Nianci

CORPORATE SOURCE: Institute of Biochemistry + Molecular Biology, Guangdong Medical College, Zhanjiang, 524023, Peop. Rep. China

SOURCE: Zhongguo Yaolixue Yu Dulixue Zazhi (2002), 16(1), 8-14
CODEN: ZYYZEW; ISSN: 1000-3002

PUBLISHER: Zhongguo Yaolixue Yu Dulixue Zazhi Biarjibu

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The direct effect of tyrphostin AG114 on recombinant human protein kinase CK2 holoenzyme and its kinetics were studied. Recombinant human protein kinase CK2 α and β subunits were cloned and expressed by genetic engineering, and purified to homogeneity. The 2 subunits were mixed at equal molar ratio and reconstituted CK2 holoenzyme, which exerted the maximum biol. activity. The CK2 activity was assayed by detecting incorporation of 32P of [γ32P]ATP or [γ32P]GTP into the substrate in various conditions. The recombinant human CK2 was a 2nd messenger (Ca2+, cAMP, and cGMP) independent protein kinase, the characterization and function of the reconstituted holoenzyme were consistent with those of native CK2. AG114 strongly inhibited the holoenzyme activity of recombinant human protein kinase CK2 with an IC50 of 20.8 μmol L-1, its potency was between 5,6-dichloro-1-β-D-ribofuranosyl-benzimidazole (DRB) and N-(2-aminoethyl)-5-chloronaphthalene-1-sulfonamide (A3), known as CK2 special inhibitors. Kinetic studies of AG114 inhibition on recombinant human CK2 showed that the inhibition was mixed competitive with GTP and non- competitive with casein. AG114 not only was an effective inhibitor of protein Tyr kinases, but also was a novel potent inhibitor of protein kinase CK2. The recombinant human protein kinase CK2 might be used as a mol. target for simpler screening and development of more effective inhibitors of CK2.

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 18 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2002:269098 CAPLUS <<LOGINID::20090203>>

DOCUMENT NUMBER: 136:273663

TITLE: Presence of gene whose product mediates ligand-independent activation of Ah receptor

AUTHOR(S): Kikuchi, Hideaki

CORPORATE SOURCE: Department of Molecular Genetics, Institute of Development, Aging and Cancer, Tohoku University, Sendai, 980-8575, Japan

SOURCE: Karei Igaku Kenkyusho Zasshi (2002), 53(1-2), 1-12
CODEN: KIKZEP; ISSN: 1340-3397
PUBLISHER: Tohoku Daigaku Karei Igaku Kenkyusho Kenkyukai
DOCUMENT TYPE: Journal; General Review
LANGUAGE: Japanese

AB A review. Previously, we showed that such benzimidazole compds., as omeprazole, lansoprazole and thiabendazole in human cells could activate Ah receptor but not in mouse cells. This activation was inhibited by the tyrosine kinase inhibitors, but not by the Ah-receptor antagonists, suggesting the presence of a ligand-independent signal-transduction pathway. We utilized the lack of CYP1A1 induction by omeprazole in mouse cells to map a putative human gene for omeprazole-responsiveness in cell hybrids produced by fusion of Hepa-1 and HepG2 cells. In this review, I summarize our recent progress and discuss the physiol. significance of this ligand-independent activation of Ah receptor.

L8 ANSWER 19 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2002:220574 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 136:263158
TITLE: Benzimidazolyl-substituted quinolinone derivatives and analogs, with inhibitory action against vascular endothelial growth factor receptor tyrosine kinase, and useful as anticancer agents
INVENTOR(S): Renhowe, Paul; Pecchi, Sabina; Machajewski, Tim; Shafer, Cynthia; Taylor, Clarke; McCrea, Bill; McBride, Chris; Jazan, Elisa; Wernette-Hammond, Mary-Ellen; Harris, Alex
PATENT ASSIGNEE(S): Chiron Corporation, USA
SOURCE: PCT Int. Appl., 207 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002022598	A1	20020321	WO 2001-US42131	20010911 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2421120	A1	20020321	CA 2001-2421120	20010911 <--
CA 2421120	C	20080715		
AU 2001093275	A	20020326	AU 2001-93275	20010911 <--
EP 1317442	A1	20030611	EP 2001-973722	20010911 <--
EP 1317442	B1	20051116		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
HU 2003001045	A2	20031229	HU 2003-1045	20010911 <--
BR 2001013757	A	20040302	BR 2001-13757	20010911 <--
JP 2004509112	T	20040325	JP 2002-526851	20010911 <--
NZ 524717	A	20040924	NZ 2001-524717	20010911 <--
AU 2001293275	B2	20050414	AU 2001-293275	20010911 <--

AT 309996	T	20051215	AT 2001-973722		20010911 <--
ES 2250480	T3	20060416	ES 2001-973722		20010911 <--
EP 1650203	A1	20060426	EP 2005-17665		20010911 <--
EP 1650203	B1	20080220			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR					
AP 1666	A	20061031	AP 2003-2781		20010911 <--
W: GM, GH, KE, LS, MW, MZ, SL, SD, SZ, TZ, UG, ZM, ZW					
SG 129306	A1	20070226	SG 2005-1676		20010911 <--
EP 1849782	A1	20071031	EP 2007-11978		20010911 <--
R: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE, TR, AL, LT, LV, MK, RO, SI					
CN 100351249	C	20071128	CN 2001-815371		20010911 <--
AT 386736	T	20080315	AT 2005-17665		20010911 <--
ES 2302106	T3	20080701	ES 2005-17665		20010911 <--
ZA 2003001578	A	20040826	ZA 2003-1578		20030226 <--
IN 2003KN00244	A	20050311	IN 2003-KN244		20030226 <--
MX 2003002032	A	20030724	MX 2003-2032		20030307 <--
NO 2003001097	A	20030325	NO 2003-1097		20030310 <--
NO 324155	B1	20070903			
US 20040006101	A1	20040108	US 2003-387355		20030312 <--
US 6762194	B2	20040713			
BG 107709	A	20040130	BG 2003-107709		20030408 <--
HK 1053644	A1	20060504	HK 2003-104217		20030612 <--
US 20050054672	A1	20050310	US 2004-886950		20040708 <--
HK 1064368	A1	20080926	HK 2004-106977		20040914 <--
US 20050209456	A1	20050922	US 2005-92137		20050329 <--
US 7335774	B2	20080226			
AU 2005202068	A1	20050602	AU 2005-202068		20050513 <--
AU 2005202068	B2	20070809			
KR 2006036494	A	20060428	KR 2006-707122		20060413 <--
KR 765841	B1	20071010	KR 2006-717401		20060828 <--
JP 2007191486	A	20070802	JP 2007-62683		20070312 <--
NO 2007001888	A	20030325	NO 2007-1888		20070412 <--
IN 2008KN01705	A	20081226	IN 2008-KN1705		20080428 <--
PRIORITY APPLN. INFO.:			US 2000-232159P	P	20000911 <--
			AU 2001-293275	A3	20010911 <--
			EP 2001-973722	A3	20010911 <--
			EP 2005-17665	A3	20010911 <--
			JP 2002-526851	A3	20010911 <--
			US 2001-951265	A1	20010911 <--
			WO 2001-US42131	W	20010911 <--
			US 2002-284017	A1	20021030 <--
			IN 2003-KN244	A3	20030226 <--
			KR 2003-703558	A3	20030311 <--
			US 2004-886950	A1	20040708 <--
OTHER SOURCE(S):	MARPAT 136:263158				
GI					

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. of formulas I and II are provided [for I: Z = O, S, (un)substituted NH; Y = certain OH derivs., CHO, esters and amides of CO2H, certain NH2 derivs.; R1-R4 = H, halo, cyano, NO2, OH or derivs., NH2 or derivs., (un)substituted amidinyl, guanidinyl, alk(en/yn)yl, aryl, heterocyclyl, CHO, CO2H and esters and amides; R5-R8 = H, halo, NO2, OH or derivs., NH2 or derivs., SH or derivs., cyano, etc.; R9 = H, OH, (un)substituted alkoxy or aryloxy, NH2 or derivs., (un)substituted alkyl

or aryl, CHO, alkanoyl, aroyl; for II: A, B, D, E = C or N, with at least one being N; Y = H, OH or derivs., SH or derivs., NH2 or derivs., cyano, various acyl groups, (un)substituted alk(en/yn)yl, aralkyl, heterocycloalkyl, aryl, etc.; R1-R8 = H, halo, NO2, cyano, OH or derivs., NH2 or derivs., acyl, SH or derivs., etc.; R9 = H, OH, (un)substituted alkoxy, aryloxy, NH2 or derivs., aryl, CHO, alkanoyl, aroyl]. Also provided are pharmaceutical formulations including the compds. or their pharmaceutically acceptable salts and a pharmaceutically acceptable carrier, which may be prepared by mixing the compds. or salts with a carrier and water. A disclosed method of treating a patient includes administering a pharmaceutical formulation according to the invention to a patient. Claims include tautomers of the compds., pharmaceutically acceptable salts, and pharmaceutically acceptable salts of the tautomers. I and II are inhibitors of receptor tyrosine kinases, and particularly of vascular endothelial growth factor receptor (VEGFR) tyrosine kinase. As such, they are inhibitors of angiogenesis, and thereby act as anticancer agents. Approx 270 invention compds. are listed, with detailed prepns. given for about 50 compds. Several general preparatory methods are discussed in detail. For instance, cyclocondensation of Et 2-(benzimidazol-2-yl)acetate with the corresponding ortho-amino nitrile (prepns. given), carried out in refluxing ClCH2CH2Cl in the presence of SnCl4, gave the invention quinolinone III. Many compds. I and II had in vitro IC50 values of less than 10 μM with respect to flt-1 (VEGFR1), KDR (VEGFR2) and bFGF kinases (recombinant, expressed in Sf9 insect cells).

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 20 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2001:300674 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 134:326527
TITLE: Preparation of benzimidazole derivatives as tyrosine kinase inhibitors
INVENTOR(S): Fraley, Mark E.; Hambaugh, Scott R.; Hungate, Randall W.
PATENT ASSIGNEE(S): Merck & Co. Inc., USA
SOURCE: PCT Int. Appl., 107 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001028993	A2	20010426	WO 2000-US28641	20001016 <--
WO 2001028993	A3	20010913		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2387840	A1	20010426	CA 2000-2387840	20001016 <--
AU 2001010913	A	20010430	AU 2001-10913	20001016 <--
AU 778042	B2	20041111		
EP 1226119	A2	20020731	EP 2000-972217	20001016 <--
EP 1226119	B1	20050316		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL

JP 2003512353	T	20030402	JP 2001-531793		20001016	<--
AT 290865	T	20050415	AT 2000-972217		20001016	<--
ES 2235970	T3	20050716	ES 2000-972217		20001016	<--
US 6479512	B1	20021112	US 2000-690602		20001017	<--
PRIORITY APPLN. INFO.:			US 1999-160362P	P	19991019	<--
			WO 2000-US28641	W	20001016	<--

OTHER SOURCE(S): MARPAT 134:326527
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/ Structure 809 in file .gra /

AB Title compds. [I; X = CH, N; Y = CH, N, S; Z = CH, S, electron pair; Q = CH, electron pair; dotted bond = single, double; R = (CH3)2NCH2CH(CH3)CH2O, (CH3OCH2CH2)(C6H5CH2)NCH2CH2O, (CH3CH2)2NCH2CH2O, (CH3)(C6H5CH2)NCH2CH2CH2O, (CH3OCH2CH2)(HOOCCH2CH2)NCH2CH2O, (CH3OCH2CH2)(CH3SO2)NCH2, cycloalkylaminoalkyl, heterocyclylalkyl, etc.], stereoisomer, and pharmaceutically acceptable salts are prepared and inhibit, regulate and/or modulate tyrosine kinase signal transduction. Title compds. are tested on VEGF-stimulated mitogenesis of human vascular endothelial cells in culture with IC50 values between 0.001-5.0 μM. Pharmaceutical compns. and methods of using them to treat tyrosine kinase-dependent diseases and conditions, such as angiogenesis, cancer, tumor growth, atherosclerosis, age related macular degeneration, diabetic retinopathy, inflammatory diseases, etc. are discussed. Thus, the title compound II was prepared

L8 ANSWER 21 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2001:169365 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 134:217405
TITLE: Fibroblast growth factor-2 (FGF-2) increases N-cadherin expression through protein kinase C and src-kinase pathways in human calvaria osteoblasts
AUTHOR(S): Debiais, Francoise; Lemonnier, Jerome; Hay, Eric; Delannoy, Philippe; Caverzasio, Joseph; Marie, Pierre J.
CORPORATE SOURCE: INSERM Unit 349 Affiliated CNRS, Lariboisiere Hospital, Paris, 75475, Fr.
SOURCE: Journal of Cellular Biochemistry (2001), 81(1), 68-81
CODEN: JCEBD5; ISSN: 0730-2312
PUBLISHER: Wiley-Liss, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Fibroblast growth factors (FGFs) are important factors regulating osteogenesis. However, the early mechanisms and signaling pathways involved in FGF actions in osteoblasts are unknown. The authors investigated the effects of FGF-2 on cell-cell adhesion and cadherin expression and the underlying signaling pathways in immortalized human neonatal calvaria (IHNC) cells. These cells express E- and N-cadherins, as shown by immunocytochem. and Western blot analyses. RhFGF-2 increased cell-cell adhesion at 24-72h, as measured in a cell aggregation assay, and this effect was blocked by specific neutralizing anti-N-cadherin, but not anti-E-cadherin antibodies. Accordingly, ELISA and Western blot analyses showed that rhFGF-2 (10-100 ng/mL) dose dependently increased N-cadherin but not E-cadherin protein levels. RT-PCR anal. showed that rhFGF-2

transiently increased N-cadherin mRNA levels in IHNC cells. The RNA polymerase II inhibitor 5,6-dichloro-1-β-D-ribofuranosyl benzimidazole prevented the rhFGF-2-induced upregulation of N-cadherin mRNA, suggesting that transcription is necessary for this effect. Anal. of signaling mols. showed evidence that PLCγ-PKC, Src, Erk 1/2 and p38 MAPK pathways are activated by rhFGF-2 in IHNC cells. The selective PKC inhibitors calphostin C, Ro-31-8220, Go6976 and Go6983 abrogated the stimulatory effect of rhFGF-2 on N-cadherin mRNA levels. The src-family tyrosine kinase inhibitor PP1 also blocked rhFGF-2-promoted N-cadherin expression. In contrast, the p38 MAP kinase inhibitor SB 203580 or the MEK inhibitor PD98059 had no effect on rhFGF-2-induced N-cadherin mRNA levels. The authors' data indicate that FGF-2 increases N-cadherin expression and function in human calvaria osteoblasts via activation of PKC and src-kinase pathways. This study identifies N-cadherin as a previously unrecognized target gene for FGF-2 signaling pathway that regulates cell-cell adhesion in human osteoblasts.

REFERENCE COUNT: 54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 22 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2001:12273 CAPLUS <<LOGINID::20090203>>

DOCUMENT NUMBER: 134:86271

TITLE: Preparation of pyrimidine derivatives as Src-family protein tyrosine kinase inhibitor compounds

INVENTOR(S): Armstrong, Helen M.; Beresis, Richard; Goulet, Joung L.; Holmes, Mark A.; Hong, Xingfang; Mills, Sander G.; Parsons, William H.; Sinclair, Peter J.; Steiner, Mark G.; Wong, Frederick; Zaller, Dennis M.

PATENT ASSIGNEE(S): Merck & Co., Inc., USA

SOURCE: PCT Int. Appl., 470 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2001000213	A1	20010104	WO 2000-US17443		20000626 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG					
CA 2383546	A1	20010104	CA 2000-2383546		20000626 <--
EP 1206265	A1	20020522	EP 2000-941701		20000626 <--
EP 1206265	B1	20031112			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL					
US 6498165	B1	20021224	US 2000-604305		20000626 <--
JP 2003523942	T	20030812	JP 2001-505922		20000626 <--
AT 253915	T	20031115	AT 2000-941701		20000626 <--
PRIORITY APPLN. INFO.:			US 1999-141639P	P	19990630 <--
			WO 2000-US17443	W	20000626 <--

OTHER SOURCE(S): MARPAT 134:86271

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/ Structure 810 in file .gra /

AB What are claimed are pyrimidine compds. (shown as I), or their pharmaceutically acceptable salts, hydrates, solvates, crystal forms and individual diastereomers, and pharmaceutical compns. including the same and their use as inhibitors of tyrosine kinase enzymes and consequently their use in the prophylaxis and treatment of protein tyrosine kinase-associated disorders, such as immune diseases, hyperproliferative disorders and other diseases in which inappropriate protein kinase action is believed to play a role, such as cancer, angiogenesis, atherosclerosis, graft rejection, rheumatoid arthritis and psoriasis. In I, R1, R2 = independently H, halo, OH, SH, CN, NO2, alkyl, alkoxy, acyloxy, alkoxycarbonyloxy, carbamoyloxy, alkylthio, sulfinyl, sulfonyl, acyl, alkoxycarbonyl, carbamoyl, amino, acylamino, ureido, sulfamoyl, sulfonylamino, or R1 and R2 can join together to form a fused methylenedioxy ring or a fused 6-membered aromatic ring; terms such as 'alkyl' here and below are further defined in the claims. R3, R5 = independently H, C1-C6-alkyl unsubstituted or substituted with 1-3 substituents, aryl, or R3 and R5 taken together can represent :O; R3 or R5 can represent a 2 or 3 C methylene bridge forming a ring of 5-8 atoms fused to the A ring. R4 = H, C1-C6-alkyl, C1-C6-alkoxyl. X1, X2, X3, X4 in -X1:X2-X3:X4- are substituted or unsubstituted CH or N where 0-2 of X1, X2, X3, X4 are N. X5, X6 = independently N, C, optionally substituted CH. A ring = Ph, naphthyl, pyridyl, pyrazinyl, pyrimidinyl, pyrrolyl, thienyl, oxazolyl, isoxazolyl, thiazolyl, pyrazolyl, triazolyl, tetrazolyl, furanyl, benzothienyl, benzofuranyl, indolyl, imidazolyl, benzimidazolyl, thiadiazolyl. R7, R8, R9, R10 = independently H, halo, OH, SH, CN, NO2, N3, N2+BF4-, alkyl, alkoxy, alkylthio, sulfinyl, sulfonyl, C1-C6-alkyl, C1-C6-perfluoroalkyl, acyl, alkoxycarbonyl, carbamoyl, acyloxy, alkoxycarbonyloxy, carbamoyloxy, amino, acylamino, ureido, sulfamoyl, sulfonylamino, two of R7, R8, R9, and R10 when on adjacent carbons join together to form a methylenedioxy bridge. N = 0-2. More than 500 example prepns. are given, but no preparative method is claimed and no data relating to the usefulness of the compds. are given.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 23 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2000:891563 CAPLUS <<LOGINID::20090203>>

DOCUMENT NUMBER: 134:42130

TITLE: Benzimidazole derivatives as tyrosine kinase inhibitors

INVENTOR(S): Bilodeau, Mark T.; Cunningham, April M.; Hungate, Randall W.; Koester, Timothy J.

PATENT ASSIGNEE(S): Merck & Co., Inc., USA

SOURCE: U.S., 21 pp., Cont.-in-part of U.S. Ser. No. 143,881, abandoned.
CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 6162804	A	20001219	US 1999-266331		19990311 <--
PRIORITY APPLN. INFO.:			US 1997-60151P	P	19970926 <--
			US 1998-143881	B2	19980831 <--

OTHER SOURCE(S): MARPAT 134:42130

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/ Structure 811 in file .gra /

AB Benzimidazoles I [X = CH, N; R1 = (un)substituted Ph, thienyl, thiazolyl; R2, R3 = H, alkyl, aryl, cycloalkyl, OH, NO2, NH2, halo; R4 = (un)substituted Ph, pyridinyl, pyrimidinyl, etc.; R5 = H, alkyl, alkoxy, aryloxy, halo, NH2, NO2, etc.] were prepared as tyrosine kinase inhibitors. Thus, II was prepared in 6 steps starting from 4-bromo-1-fluoro-2-nitrobenzene and proceeding via 4'-methoxy-3-nitro-N-phenyl-4-biphenylamine. The products were inhibitors of vascular endothelial growth factor (VEGF) and inhibited VEGF-stimulated mitogenesis of human vascular endothelial cells in culture with IC50 values of 150-650 nM.

REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 24 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1999:748315 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 131:351330
TITLE: Preparation of 1-phenylbenzimidazoles for inhibiting protein tyrosine kinase mediated cellular proliferation
INVENTOR(S): Boschelli, Diane Harris; Denny, William Alexander; Doherty, Annette Marian; Hamby, James Marino; Khatana, Sonya Shah; Kramer, James Bernard; Palmer, Brian Desmond; Showalter, Howard Daniel Hollis
PATENT ASSIGNEE(S): Warner-Lambert Company, USA
SOURCE: U.S., 25 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE	
US 5990146	A	19991123	US 1998-135470		19980817	<--
US 6218388	B1	20010417	US 1999-459011		19991210	<--
PRIORITY APPLN. INFO.:			US 1997-56609P	P	19970820	<--
			US 1998-135470	A3	19980817	<--
			US 1999-408630	A3	19990930	<--

OTHER SOURCE(S): MARPAT 131:351330
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/ Structure 812 in file .gra /

AB The title compds. [I; Ar = (un)substituted aryl; R1-R4 = H, alkyl, halo, etc.] and their pharmaceutically acceptable salts, inhibitors of protein tyrosine kinases such as FGFr and PDGFr which are useful in treating cellular proliferation, especially in treating cancer, atherosclerosis, restenosis, and psoriasis, were prepared Thus, reduction of 1-(4-nitrophenyl)benzimidazole over Raney Ni in THF afforded 79%

I.2HCl [Ar = 4-H2NC6H4; R1-R4 = H] which showed IC50 of > 10 μM against PDGF-stimulated receptor autophosphorylation in rat aorta smooth muscle cells.

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 25 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1999:735987 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 132:107890
TITLE: A novel and expedient approach to new heterocycles containing benzothiophene, benzothieno[2,3-d]pyrimidine and coumarin moieties
AUTHOR(S): Bilokin, Yaroslav V.; Vasylyev, Maksym V.; Branytska, Olena V.; Kovalenko, Sergiy M.; Chernykh, Valentyn P.
CORPORATE SOURCE: Department of Organic Chemistry, The Weizmann Institute of Science, Rehovot, 76100, Israel
SOURCE: Tetrahedron (1999), 55(48), 13757-13766
CODEN: TETRAB; ISSN: 0040-4020
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB In order to obtain potent protein-tyrosine kinase inhibitors, a novel and versatile method for synthesis of heterocyclic compds. comprising 2-imino-2H-1-benzopyran, tetrahydrobenzo[b]thiophene, and carboxamide/1H-benzimidazole fragments has been developed. This method was based on the reactions of 2-imino-2H-1-benzopyrans with 2-amino-4,5,6,7-tetrahydrobenzo[b]thiophenes in glacial acetic acid. Furthermore, new heterocycles with tetrahydrobenzo[4,5]thieno[2,3-d]pyrimidine and coumarin moieties were prepared via a rearrangement of the corresponding 2-[[3-(aminocarbonyl)-4,5,6,7-tetrahydrobenzo[b]thien-2-yl]imino]-2H-1-benzopyran-3-carboxamides. The biol. activity of the compds. thus prepared was not reported.
REFERENCE COUNT: 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 26 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1999:451297 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 131:102288
TITLE: Bicyclic heteroaromatic compounds [quinazolinamines, pyridopyrimidines, and analogs] useful as protein tyrosine kinase inhibitors
INVENTOR(S): Carter, Malcolm Clive; Cockerill, George Stuart; Guntrip, Stephen Barry; Lackey, Karen Elizabeth; Smith, Kathryn Jane
PATENT ASSIGNEE(S): Glaxo Group Limited, UK
SOURCE: PCT Int. Appl., 129 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9935146	A1	19990715	WO 1999-EP48	19990108 <--

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW

RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA	2317589	A1	19990715	CA 1999-2317589	19990108	<--
CA	2317589	C	20070807			
AU	9922783	A	19990726	AU 1999-22783	19990108	<--
AU	749549	B2	20020627			
BR	9906904	A	20001017	BR 1999-6904	19990108	<--
EP	1047694	A1	20001102	EP 1999-902522	19990108	<--
EP	1047694	B1	20040707			

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

TR	200002015	T2	20010122	TR 2000-2015	19990108	<--
HU	2001000941	A2	20010928	HU 2001-941	19990108	<--
EE	200000411	A	20011217	EE 2000-411	19990108	<--
EE	4616	B1	20060417			
JP	2002500225	T	20020108	JP 2000-527545	19990108	<--
JP	3390741	B2	20030331			
JP	2002326990	A	20021115	JP 2002-92102	19990108	<--
NZ	505456	A	20030630	NZ 1999-505456	19990108	<--
CN	1134437	C	20040114	CN 1999-803887	19990108	<--
AT	270670	T	20040715	AT 1999-902522	19990108	<--
EP	1454907	A1	20040908	EP 2004-76762	19990108	<--
EP	1454907	B1	20081217			

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL

EP	1460072	A1	20040922	EP 2004-76761	19990108	<--
EP	1460072	B1	20060405			

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL

PT	1047694	T	20041130	PT 1999-902522	19990108	<--
ES	2221354	T3	20041216	ES 1999-902522	19990108	<--
AP	1446	A	20050930	AP 2000-1861	19990108	<--

W: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW

AT	322491	T	20060415	AT 2004-76761	19990108	<--
PT	1460072	T	20060731	PT 2004-76761	19990108	<--
ES	2262087	T3	20061116	ES 2004-76761	19990108	<--
PL	192746	B1	20061229	PL 1999-341595	19990108	<--
SK	285405	B6	20070104	SK 2000-1050	19990108	<--
CZ	298047	B6	20070606	CZ 2000-2587	19990108	<--
AT	417847	T	20090115	AT 2004-76762	19990108	<--
ZA	9900172	A	20000711	ZA 1999-172	19990111	<--
TW	477788	B	20020301	TW 1999-88100388	19990112	<--
US	6727256	B1	20040427	US 2000-582746	20000630	<--
NO	2000003561	A	20000911	NO 2000-3561	20000711	<--
NO	316176	B1	20031222			
MX	2000006824	A	20010405	MX 2000-6824	20000711	<--
HR	2000000469	A1	20010630	HR 2000-469	20000712	<--
HR	2000000469	B1	20070531			
IN	2000KN00130	A	20050311	IN 2000-KN130	20000712	<--
BG	104668	A	20010430	BG 2000-104668	20000807	<--
BG	64825	B1	20060531			
HK	1031883	A1	20050304	HK 2001-102589	20010411	<--
US	20020147205	A1	20021010	US 2002-71358	20020208	<--
US	6713485	B2	20040330			
US	20030176451	A1	20030918	US 2003-342810	20030115	<--
US	20050130996	A1	20050616	US 2005-50033	20050203	<--
US	7109333	B2	20060919			
US	20070015775	A1	20070118	US 2006-532926	20060919	<--
US	20070238875	A1	20071011	US 2007-752582	20070523	<--

PRIORITY APPLN. INFO.:				GB 1998-569	A 19980112	<--

EP 1999-902522	A3	19990108 <--
JP 2000-527545	A3	19990108 <--
WO 1999-EP48	W	19990108 <--
US 2000-582746	A1	20000630 <--
US 2003-342810	A1	20030115 <--
US 2005-50033	A1	20050203

OTHER SOURCE(S): MARPAT 131:102288
GI

/ Structure 813 in file .gra /

AB Title compds. I and their salts and solvates are disclosed [wherein X = N or CH; Y = CR1 and V = N; or Y = N and V = CR1; or Y = CR1 and V = CR2; or Y = CR2 and V = CR1; R1 = MeSO2CH2CH2NHCH2-Ar-, wherein Ar = (un)substituted Ph, furan, thiophene, pyrrole, or thiazole; R2 = H, halo, OH, C1-4 alkyl, C1-4 alkoxy, C1-4 alkylamino, or di[C1-4 alkyl]amino; U = Ph, pyridyl, 3H-imidazolyl, indolyl, isoindolyl, indolinyl, isoindolinyl, 1H-indazolyl, 2,3-dihydro-1H-indazolyl, 1H-benzimidazolyl, 2,3-dihydro-1H-benzimidazolyl or 1H-benzotriazolyl group, substituted by R3 and optionally by R4; R3 = (halo)benzyl, benzoyl, pyridylmethyl, pyridylmethoxy, phenoxy, benzyloxy, halo-, dihalo- and (halo)benzyloxy, PhSO2, (trihalomethyl)benzyl, (trihalomethyl)benzyloxy, (R5)n-substituted phthalimido; R4 = OH, halo, C1-4 alkyl, C2-4 alkenyl, C2-4 alkynyl, C1-4 alkoxy, (di)(alkyl)amino, C1-4 alkylthio, etc.; R5 = halo, C1-4 alkyl, C1-4 alkoxy; n = 0-3]. Also disclosed are methods for their preparation, pharmaceutical compns. containing them, and their use in medicine. The compds. are inhibitors of protein tyrosine kinases, and as such are useful in the treatment of cancer, psoriasis, and rheumatoid arthritis. Over 40 title compds. and numerous intermediates were prepared For example, 4,6-dichloropyrido[3,4-d]pyrimidine was condensed with 4-[(4-fluorobenzyl)oxy]aniline at the 4-chloro position, followed by Pd-catalyzed coupling with 5-(1,3-dioxolan-2-yl)-2-(tributylstannyl)furan at the 6-chloro position, hydrolysis of the dioxolane protecting group to give an aldehyde, reductive amination of the latter with MeSCH2CH2NH2, and finally S-oxidation with Oxone and acidification, to give title salt II.2HCl. In a methylene blue growth inhibition assay against 5 tumor cell lines, II.2HCl had an IC50 of < 5 μM against 4 of them, and an IC50 of 25-50 μM against the 5th.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 27 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1999:233907 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 130:252359
TITLE: Preparation of benzimidazoles and imidazopyridines as tyrosine kinase inhibitors
INVENTOR(S): Bilodeau, Mark T.; Hungate, Randall W.; Cunningham, April M.; Koester, Timothy J.
PATENT ASSIGNEE(S): Merck & Co., Inc., USA
SOURCE: PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 9916755	A1	19990408	WO 1998-US19789		19980922 <--
W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GD, GE, HR, HU, ID, IL, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, UA, US, UZ, VN, YU					
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG					
CA 2303830	A1	19990408	CA 1998-2303830		19980922 <--
AU 9895003	A	19990423	AU 1998-95003		19980922 <--
AU 744939	B2	20020307			
EP 1017682	A1	20000712	EP 1998-948427		19980922 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, SI, LT, LV, FI, RO					
JP 2001518470	T	20011016	JP 2000-513841		19980922 <--
PRIORITY APPLN. INFO.:			US 1997-60151P	P	19970926 <--
			GB 1998-10544	A	19980515 <--
			WO 1998-US19789	W	19980922 <--

OTHER SOURCE(S): MARPAT 130:252359
GI

/ Structure 814 in file .gra /

AB The title compds. I [X = N, C; R1 = H, alkyl, cycloalkyl, halo, etc.; R2, R3 = H, alkyl, aryl, OH, etc.; R4 = H, alkyl, alkoxy, alkenyl, etc.; R5 = H, alkyl, halo, etc.], which inhibit tyrosine kinase enzymes, were prepared E.g., 1-phenyl-5-(4-methoxyphenyl)benzimidazole was prepared
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 28 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1998:780635 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 130:192242
TITLE: BDNF-dependent enhancement of exocytosis in cultured cortical neurons requires translation but not transcription
AUTHOR(S): Bradley, John; Sporns, Olaf
CORPORATE SOURCE: The Neurosciences Institute, San Diego, CA, 92121, USA
SOURCE: Brain Research (1999), 815(1), 140-149
CODEN: BRREAP; ISSN: 0006-8993
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Neurotrophic factors, such as brain-derived neurotrophic factor (BDNF), are involved in acute modulation of synaptic plasticity. Different modes of action of BDNF have been described with time courses ranging from seconds to hours, but the sequence of cellular processes responsible for BDNF-dependent modulation of synaptic plasticity is unknown. We have used optical imaging of the styryl dye, FM1-43, which selectively labels synaptic vesicles, to investigate potential presynaptic effects of BDNF. Addition of BDNF to cultured cortical neurons for 3 h produced a significant enhancement of exocytosis upon modest depolarization. BDNF had no effect on exocytosis either immediately or after incubation for 30 min. BDNF-dependent enhancement of exocytosis was blocked by the tyrosine kinase inhibitor, K252a, but not by K252b, consistent with signaling via the TrkB receptor. Having

demonstrated that the BDNF-dependent enhancement of synaptic vesicle release was present only after 1 h, we investigated whether de novo gene transcription and/or protein synthesis were involved. Addition of the inhibitors of RNA synthesis, actinomycin D, or 5,6-dichloro-1-β-D-ribofuranosyl benzimidazole, did not affect the enhancement of exocytosis produced by BDNF. However, the effect of BDNF was blocked by the inhibitors of translation, cycloheximide or anisomycin. Our results indicate a rapid BDNF-dependent enhancement of neurotransmitter release that requires translation but not transcription.
REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 29 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1998:678728 CAPLUS <<LOGINID::20090203>>
DOCUMENT NUMBER: 130:47443
TITLE: Induction of cytochrome P-450 1A1 by omeprazole in human HepG2 cells is protein tyrosine kinase-dependent and is not inhibited by α-naphthoflavone
AUTHOR(S): Kikuchi, Hideaki; Hossain, Anwar; Yoshida, Hiroyuki; Kobayashi, Shunsuke
CORPORATE SOURCE: Department of Molecular Genetics, Tohoku University, Sendai, 980-8575, Japan
SOURCE: Archives of Biochemistry and Biophysics (1998), 358(2), 351-358
CODEN: ABBIA4; ISSN: 0003-9861
PUBLISHER: Academic Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Benzimidazole compds., such as omeprazole and thiabendazole, are a different type of CYP1A1 inducer from Ah receptor-ligands, such as TCDD (2,3,7,8-tetrachlorodibenzo-p-dioxin) and 3-methylcholanthrene. In HepG2 cells, the commonly used tyrosine kinase inhibitors, herbimycin-A and a series of tyrphostins, inhibited the induction of CYP1A1 produced by treatment with TCDD. Genistein, another type of tyrosine kinase inhibitor, inhibited the induction of CYP1A1 whether it was produced by omeprazole or TCDD; however, this inhibition was caused by a dual effect of genistein, that is an anti-tyrosine kinase and an anti-topoisomerase I effect. An antagonist of Ah receptor, α-naphthoflavone (0.1-10 μM), and 3'-methoxy-4'-aminoflavone (1 μM), did not inhibit the induction of CYP1A1 produced in HepG2 cells by omeprazole, but both of them did inhibit that produced by TCDD. In one of a number of human lung tumor cell lines, S6T, the inducibility of CYP1A1 was high by TCDD, whereas the inducibility by omeprazole was low. Thus, omeprazole appears to induce CYP1A1 by initiating a protein tyrosine kinase-mediated signal transduction pathway, a different pathway from that inhibited by TCDD. (c) 1998 Academic Press.
REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> FIL STNGUIDE

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	212.25	212.69

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-23.78	-23.78

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LAST RELOADED: Jan 30, 2009 (20090130/UP).

=> file capl
COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION
FULL ESTIMATED COST | 0.77 | 213.46

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION
CA SUBSCRIBER PRICE | 0.00 | -23.78

FILE 'CAPLUS' ENTERED AT 10:59:47 ON 03 FEB 2009
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PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 3 Feb 2009 VOL 150 ISS 6
FILE LAST UPDATED: 2 Feb 2009 (20090202/ED)

Caplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

CAS Information Use Policies apply and are available at:

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> e staehle w/au
E1 5 STAEHLE V/AU
E2 11 STAEHLE VOLKER/AU
E3 0 --> STAEHLE W/AU
E4 1 STAEHLE WILHELM/AU
E5 32 STAEHLE WOLFGANG/AU
E6 4 STAEHLER A/AU
E7 1 STAEHLER ANNE JULIA/AU
E8 12 STAEHLER ARTHUR/AU
E9 1 STAEHLER C F/AU
E10 4 STAEHLER CORD/AU
E11 9 STAEHLER CORD F/AU
E12 3 STAEHLER CORD FRIEDRICH/AU

=> s e5
L9 32 "STAEHLE WOLFGANG"/AU

=> e jonczyk a/au

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E2            1     JONCZY MACIEJ/AU
E3           46 --> JONCZYK A/AU
E4            1     JONCZYK AGNES/AU
E5          104     JONCZYK ALFRED/AU
E6            1     JONCZYK ALFRED DR/AU
E7            2     JONCZYK ANDREZEJ/AU
E8          125     JONCZYK ANDRZEJ/AU
E9           12     JONCZYK ANNA/AU
E10           3     JONCZYK ANTONI/AU
E11           1     JONCZYK BARBARA/AU
E12           2     JONCZYK BEATA/AU

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            104 "JONCZYK ALFRED"/AU
              1 "JONCZYK ALFRED DR"/AU
L10         151 "JONCZYK A"/AU OR ("JONCZYK ALFRED"/AU OR "JONCZYK ALFRED DR"/AU
                )

=> e rautenberg w/au
E1            2     RAUTENBERG U/AU
E2            2     RAUTENBERG UTE/AU
E3           16 --> RAUTENBERG W/AU
E4            3     RAUTENBERG WERNER/AU
E5           34     RAUTENBERG WILFRIED/AU
E6            2     RAUTENBERGER RALF/AU
E7            1     RAUTENBERGER WILFRIED/AU
E8            5     RAUTENBURG H W/AU
E9            1     RAUTENBURG P/AU
E10           1     RAUTENBUSCH W/AU
E11           1     RAUTENFELDT V/AU
E12           1     RAUTENGARTEN A M/AU

=> s e3 or e5
             16 "RAUTENBERG W"/AU
             34 "RAUTENBERG WILFRIED"/AU
L11          50 "RAUTENBERG W"/AU OR "RAUTENBERG WILFRIED"/AU

=> s l9 or l10 or l11
L12         203 L9 OR L10 OR L11

=> s l3 (L) (benzoxazol? or benzimidazol?)
          12213 BENZOXAZOL?
          36828 BENZIMIDAZOL?
L13          42 L3 (L) (BENZOXAZOL? OR BENZIMIDAZOL?)

=> s l12 and l13
L14           2 L12 AND L13

=> s inhibitor (5A) l1
         603909 INHIBITOR
         595724 INHIBITORS
         935378 INHIBITOR
                  (INHIBITOR OR INHIBITORS)
L15       12631 INHIBITOR (5A) L1

=> s l12 and l15
L16          21 L12 AND L15

=> d ti abs 1-21
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L16 ANSWER 1 OF 21 CAPLUS COPYRIGHT 2009 ACS on STN
TI Preparation of 1-phenyl-3-(2H-pyrazol-3-yl)ureas as Tie-2 and Raf kinase inhibitors for treating tumor
GI

/ Structure 815 in file .gra /

AB Title compds. [I; R = (un)substituted mono- or bicyclic aromatic heterocycle containing 1-4 N-, O-, and/or S-atoms; X = bond, CH2, NH, O, S; R1 = (un)substituted Ph, R2 = A, R1, (un)substituted mono- or bicyclic aromatic heterocycle containing 1-4 N-, O-, and/or S-atoms; A = (F-, or Cl-substituted) alkyl; R3, R4 = H, A, halo, OH, OA, cyano], were prepared as Tie-2 and Raf kinase inhibitors (no data). Thus, a mixture of 5-tert-butyl-2p-tolyl-2H-pyrazol-3-ylamine (preparation given) and 4-nitrophenyl chloroformate in CH2Cl2 was stirred with pyridine for 2 h at room temperature followed by treatment with 9-(aminophenyl)-9H-purin-6-ylamine (preparation given) and N-ethyldiisopropylamine to give after stirring over night 1-[4-(6-aminopurin-9-yl)phenyl]-3-(5-tert-butyl-2p-tolyl-2H-pyrazol-3-yl)urea.

L16 ANSWER 2 OF 21 CAPLUS COPYRIGHT 2009 ACS on STN
TI Preparation of purine derivatives as receptor-tyrosine kinase activity inhibitors
GI

/ Structure 816 in file .gra /

AB The invention relates to compds. I [R1 = H, A; R2, R3 = H, A, Hal, OH, OA, CN; R4 = Ar, Het1; R5, R6 = H, A; X = OH, NH2; A = C1-10-alkyl, optionally substituted with 1 to 7 F or Cl; Ar = (un)substituted Ph optionally substituted with 1 to 3 from the following, Hal, A, OA, OH, C2-6-alkenyl, C2-6-alkynyl, NO2, NR5R6, C(:O)NR5R6, CO2H, CO2A, CN, CHO, COA, Ph, (CH2)nHet, O(CH2)nHet, NH(CH2)nHet, O(CH2)nCyc, N(CH2)nCyc, O(CH2)mNR5R6, NR1(CH2)mNR5R6, O(CH2)mNR1O(CH2)mNR5R6; Het = (un)saturated or aromatic, mono- or bicyclic heterocycle containing 1 to 4 N, O and S and optionally substituted with 1 to 3 Hal, A, OA, Ph, CO2A, CN, CC(:O); Het1 = mono- or bicyclic, aromatic heterocycle containing 1 to 4 N, O and S and optionally substituted with 1 to 3 Hal, A, OA, OH, C2-6-alkenyl, C2-6-alkynyl, NO2, NR5R6, C(:O)NR5R6, CO2H, CO2A, CN, CHO, COA, Ph, (CH2)nHet, O(CH2)nHet, NH(CH2)nHet, O(CH2)nCyc, N(CH2)nCyc, O(CH2)mNR5R6, NR1(CH2)mNR5R6, O(CH2)mNR1O(CH2)mNR5R6; Cyc = C3-7-cycloalkyl; Hal = F, Cl, Br, I; n = 0, 1, 2, 3, 4; m = 1, 2, 3, 4] or their pharmaceutically acceptable salts, solvates, tautomers, stereoisomers or their mixts., which are inhibitors of tyrosine kinases, in particular TIE-2, and the Raf-kinases and can be also be used for treating tumors. The procedure for the preparation of I comprises: carbamoylation of purinylanilines II with (a) isocyanates, R4NCO; or (b) carbamoylation by sequential addition of chloroformates followed by amines R4NH2; or, (c) by solvolysis or hydrogenolysis of protected derivs. of II and its salts. Thus, 1-[4-(6-aminopurin-9-yl)phenyl]-3-[3-(trifluoromethyl)phenyl]urea [I; R1 = R2 = R3 = H; R4 = C6H4CF3-3; X = NH2] was prepd, from 9-(4-aminophenyl)adenine [II; R1 = R2 = R3 = H; X = NH2] via carbamoylation with 3-CF2C6H4NCO in CH2Cl2 containing Et3N. The enzyme inhibiting activity of I [R1 = R2 = R3 = H; R4 = C6H4CF3-3; X = NH2] was

determined [IC50 = 14 nmol/L vs. Tyrosine kinase receptor Tie-2 and IC50 = 3.6 nmol/L vs. Vascular endothelial growth factor receptors (VEGFR)].

L16 ANSWER 3 OF 21 CAPLUS COPYRIGHT 2009 ACS on STN
TI Preparation of (1-phenyl-1H-pyrazol-5-yl)ureas as TIE-2 and Raf Kinase inhibitors
GI

/ Structure 817 in file .gra /

AB Title compds. I [R1 = (un)substituted phenyl; R2 = A, R1, Het; A = alkyl; Het = aromatic heterocycle] and their pharmaceutically acceptable salts and formulations were prepared For example, phenylpyrazolylurea II was prepared from (4-fluorophenyl)hydrazine in 2-steps. Compds. I are claimed to be inhibitors of TIE-2 and Raf Kinases.

L16 ANSWER 4 OF 21 CAPLUS COPYRIGHT 2009 ACS on STN
TI Preparation of pyrrolo[3,2,1-ij]quinolines as tyrosine kinase and Raf kinase inhibitors
GI

/ Structure 818 in file .gra /

AB Title compds. I [X = CH, N; R1 = halo, CN, NO2, etc.; R2 = Ar, OR, NHR, etc.; R3 = (CH2)nAr, (CH2)nHet; n = 0-4; R = H, A, Ar, etc.; A = (un)substituted alkyl with provisos] and their pharmaceutically acceptable salts and formulations were prepared For example, three-component coupling of 5-fluoroindoline, 1-vinyl-2-pyrrolidone and 3-methoxybenzaldehyde afforded claimed pyrroloquinoline II. In insulin like growth factor I receptor kinase assays, 45-examples of compds. I exhibited IC50 values ranging from 0.0019-2.9x10-5 mol/L.

L16 ANSWER 5 OF 21 CAPLUS COPYRIGHT 2009 ACS on STN
TI Preparation of 4-aminopyridopyrimidinones as TIE-2 and Raf Kinase inhibitors
GI

/ Structure 819 in file .gra /

AB Title compds. I [R1 = Ar, Het; R3 = H, A; X = phenylene with provisos; A = alkyl; Ar = (un)substituted aromatic carbocycle; Het = aromatic heterocycle with 1-4 N, O, or S atoms] and their pharmaceutically acceptable salts and formulations were prepared For example, condensation of aniline II and 2-fluoro-5-(trifluoromethyl)phenylisocyanate afforded claimed pyridopyrimidinone III. Compds. I are claimed to be inhibitors of TIE-2 and Raf Kinases.

L16 ANSWER 6 OF 21 CAPLUS COPYRIGHT 2009 ACS on STN
TI Preparation of phenylureas as TIE-2 and Raf kinase inhibitors
GI

/ Structure 820 in file .gra /

AB Title compds. I [R1, R2, R4, R6, R7, R8 = halo, CN, NO2, etc.; R3 = halo, OR; R5 = H, A; R = H, A, etc.; A = (un)substituted alkyl with provisos] and their pharmaceutically acceptable salts and formulations were prepared For example, condensation of aniline II and 3-trifluoromethylphenylisocyanate afforded claimed diphenylurea III. Compds. I are noted as TIE-2 and Raf kinase inhibitors (no data provided).

L16 ANSWER 7 OF 21 CAPLUS COPYRIGHT 2009 ACS on STN
TI Preparation of N,N'-diphenylureas as TIE-2 and Raf kinase inhibitors
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. I [R1, R2, R4, R6, R7, R8 = halo, CN, NO2, etc.; R3 = halo, OR; R5 = H, A; R = H, A, etc.; A = (un)substituted alkyl with provisos] and their pharmaceutically acceptable salts and formulations were prepared For example, condensation of aniline II and 2-fluoro-5-trifluoromethylphenylisocyanate afforded claimed diphenylurea III. Compds. I are noted as TIE-2 and Raf kinase inhibitors (no data provided).

L16 ANSWER 8 OF 21 CAPLUS COPYRIGHT 2009 ACS on STN
TI Preparation of pyridopyrimidinyl phenyl sulfonamides as inhibitors of tyrosine and Raf-kinases
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. I [X = (un)substituted -(CH2)n-Ph or -(CH2)-Het; n = 0-3; Het = (un)substituted, (un)saturated or aromatic heterocycle containing 1-4 heteroatoms selected from N, O or S; R1 and R2 independently = H, halo, OH, etc.; R3 and R4 independently = H or (un)substituted alkyl] and their pharmaceutically acceptable salts, are prepared and disclosed as inhibitors of tyrosine and Raf-kinases. Thus, e.g., II was prepared by coupling of 4-Amino-8H-pyrido[2,3-d]pyrimidin-5-one with 1-fluoro-4-nitrobenzene followed by reduction and subsequent sulfonylation using 2,3-dichlorobenzenesulfonyl chloride. The activity of I towards VEGF receptor kinase was evaluated using scintillation assay (no data). I as inhibitors of tyrosine and Raf-kinases should prove useful in the treatment of cancers such as but not limited to bladder, stomach and prostate. Pharmaceutical compns. comprising I are disclosed.

L16 ANSWER 9 OF 21 CAPLUS COPYRIGHT 2009 ACS on STN
TI Preparation of imidazole derivatives as inhibitors of tyrosine kinases and Raf kinases
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. I [R1, R2, R3, R4 and R5 independently = H, OH, NH2, etc. or two neighboring R1, R2, R3, R4 and R5 together may form -O-CH2-CH2-, -O-CH2-O- or -O-CH2-CH2-O-; R6 and R7 independently = H, OH, CN, etc.; R8 = CN, COOH, CONH2, etc.; R9, R10 and R11 independently = H or A; A = (un)substituted alkyl; X and X1 independently = NH or missing] and their pharmaceutically acceptable salts, are prepared and disclosed as inhibitors of tyrosine kinases and Raf kinases. Thus, e.g., II was prepared by coupling of 2-methoxy-5-trifluoromethylaniline with 4-nitrophenyl chloroformate followed by deprotection and subsequent cyclization using 2-amino-2-cyanoacetamide. The inhibitory activity of I towards VEGF-receptor kinase was evaluated using scintillation assays and it was revealed that compds. of the invention displayed kinase inhibitory activity (no data). I as inhibitors of tyrosine kinases and Raf kinases should prove useful in the treatment of diseases such as but not limited to lung cancer, breast cancer and arthritis. Pharmaceutical compns. comprising I are disclosed.

L16 ANSWER 10 OF 21 CAPLUS COPYRIGHT 2009 ACS on STN
TI Preparation of triazolo[1,5-a]pyrimidines and related compounds as TIE-2 kinase inhibitors
GI

/ Structure 821 in file .gra /

AB Title compds. I [X = C, N; B = N, CN, C-CN; R1 = O, OH, NH2, etc.; R2 = C, N with provisos; R3 = H, A, SA, etc.; A = alkyl with provisos; R4 = (CH2)s(Ar1)n-Ar; R5 = H, CH3; Y = O, S, NH, etc.; S = 0-4; Ar = Ph, naphthyl, biphenyl; Ar1 = phenylene, piperazindiyl (sic); R6 = (CH2)rNH2, (CH2)rNHA, (CH2)rNA2, etc.; r = 0-4] and their pharmaceutically acceptable salts and formulations were prepared For example, condensation of amine II and 4,4,4-trifluoro-1-phenyl-1,3-butandione afforded triazolo[1,5-a]pyrimidine III in 68% yield. Compds. I are claimed to be useful as TIE-2 kinase inhibitors.

L16 ANSWER 11 OF 21 CAPLUS COPYRIGHT 2009 ACS on STN
TI Preparation of thienopyrimidines and related compounds as tyrosine kinase inhibitors
GI

/ Structure 822 in file .gra /

AB Title compds. I [R1, R2 = H, alkenyl, alkynyl, etc.; R3, R4 = H, OH, halo, etc.; X = 5-7 membered heterocyclic ring with provisos; n = 0-3] and their pharmaceutically acceptable salts were prepared For example, condensation of imidazole and chloropyrimidine II, afforded claimed thienopyrimidine III. In RAF inhibition assays, 2-examples of compds. I exhibited IC50 values ranging from 4.3-5.3 μM. Compds. I are claimed to be useful as TIE-2 and Raf kinase inhibitors.

L16 ANSWER 12 OF 21 CAPLUS COPYRIGHT 2009 ACS on STN

TI Preparation of pyridopyrimidinones as inhibitors of tyrosine and Raf kinases for treatment of tumors.
GI

/ Structure 823 in file .gra /

AB Title compds. [I; R1-R5 = H, A, OH, OA, alkenyl, alkynyl, NO2, NH2, NHA, NA2, halo, cyano, CO2H, COA, CO2A, O-Het, etc.; pairs of R1-R5 = OCH2CH2, OCH2O, OCH2CH2O, OCF2O, OCA2O; R6, R7 = H, A halo, OA, cyano; R8, R9 = H, alkyl optionally interrupted by O, N; Het = mono- or bicyclic (unsatd.) (aromatic) heterocyclyl; A = (fluoro- and/or chloro-substituted) alkyl; X, X1 = NH, null], were prepared as inhibitors of tyrosine and Raf kinases (no data). Thus, 4-amino-8-(4-aminophenyl)-8H-pyrido[2,3-d]pyrimidin-5-one (preparation given) was stirred overnight with 2-fluoro-5-trifluoromethylphenyl isocyanate and Et3N in CH2Cl2 to give 1-[4-(4-amino-5-oxo-5H-pyrido[2,3-d]pyrimidin-8-yl)phenyl]-3-(2-fluoro-5-trifluoromethylphenyl)urea.

L16 ANSWER 13 OF 21 CAPLUS COPYRIGHT 2009 ACS on STN
TI Preparation of benzimidazolyls as TIE-2 tyrosine kinase inhibitors for the treatment of tumors
GI

/ Structure 824 in file .gra /

AB Title compds. I [R = (R1)m; R1 = (R1')p; R2 = (R2')q; m, p, q = 0-4; R1, R1' = Halo, OH, CN, etc.; L = CH2, CH2CH2, O, etc.; R2' = halo, OH, CO2H, etc.; E, G, M, Q, U = C or N atom with provisos] and their pharmaceutically acceptable salts and formulations were prepared For example, condensation of 4-(4-isothiocyanatophenoxy)puridine and 4-nitro-1,2-phenylenediamine afforded claimed benzimidazol II. In TIE-2 tyrosine kinase inhibition assays, 3-examples of compds. I exhibited IC50 values ranging from 5-40 + 10-7 mol/L. Compds. I are claimed to be useful as tyrosine kinase inhibitors in the treatment of tumors.

L16 ANSWER 14 OF 21 CAPLUS COPYRIGHT 2009 ACS on STN
TI Preparation of 1,3-benzoxazols as TIE-2 kinase inhibitors
GI

/ Structure 825 in file .gra /

AB Title compds. I [A = (R1)n; B = (R2)m; C = X-Y-(R3)p; R1, R2, R3 = halo, CN, NO2, etc.; X = O, S, SO2, etc.; n, m, p = 1-4; A = (un)substituted cyclic alkyl with provisos]and their pharmaceutically acceptable salts and formulations were prepared For example, condensation of 4-(pyridin-4-ylsulfanyl)phenylamine and 5-chloro-7-nitro-3H-benzoxazol-2-thione, e.g., prepared from diimidazol-1-ylmethanthione and 2-amino-4-chloro-6-nitrophenol, afforded claimed benzoxazol II. In a TIE-2 kinase inhibition assay, the IC50 value of benzoxazol II was 310 nM. Compds. I are claimed to be useful as TIE-2, VEGFR and the Raf kinase inhibitors.

L16 ANSWER 15 OF 21 CAPLUS COPYRIGHT 2009 ACS on STN
TI Preparation of benzylbenzimidazoles as inhibitors of

tyrosine kinases

GI

/ Structure 826 in file .gra /

AB Benzylbenzimidazoles I [R1, R2 = R, halogen, CN, NO2, NHR, NR2, NHCOR, NHSO2R, OR, COR, CONHR, SCF3, SO3R, SO2R, SO2NHR, SO2NR2, SR, CO2H, CO2A; R22 = OCH2O, OCH2CH2O; R = H, A, Ar, (CH2)nAr, (CH2)nHet; n = 1-3; Ar = (un)substituted Ph, naphthyl; A = (un)substituted alkyl, heteroalkyl, alkenyl; Het = (un)substituted heterocyclic; m = 0-4; p = 0-5] were prepared as inhibitors of tyrosine kinases, particularly TIE-2, VEGFR, PDGFR, FGFR and/or FLT/KDR, for the treatment of tumors. Thus, 4,3-F(O2N)C6H3CHO was converted to 4,3-F(O2N)C6H3CO2H and bound to polymer support, followed by reduction to the amine, reaction with 4-MeOC6H4CH2NH2, release from the polymer, and reduction to give I [R1 = 5-(CH2)3OH, R2 = 4-OMe]. I [R1 = 4-(2,3-Cl2C6H3SO2NH), R2 = 5-(CH2)3OH] had IC50 for inhibition of TIE-2 320 nM.

L16 ANSWER 16 OF 21 CAPLUS COPYRIGHT 2009 ACS on STN

TI Preparation of 2-aminobenzimidazoles as TIE-2 and Raf kinase inhibitors for the treatment of tumors

GI

/ Structure 827 in file .gra /

AB Title compds. I [R1 = (R4)m; R2 = (R4')p; R3 = L-Y; R4, R4' = halo, OH, CN, etc.; L = CH2, CH2CH2, O, etc.; Y = heterocycle; m, p = 0-4] and their pharmaceutically acceptable salts were prepared For example, condensation of 4-fluoronitrobenzene and isothiocyanate II, e.g., prepared from 5-hydroxy-2,1,3-benzothiadiazole in 3-steps, afforded aminobenzimidazole III. In TIE-2 tyrosine kinase receptor inhibition assays, 4-examples of compds. I exhibited IC50 values ranging from 0.22-0.39 μM, e.g., the IC50 value of aminobenzimidazole III was 0.22 μM. Compds. I are claimed to be useful for the treatment of tumors via the inhibition of TIE-2 and Raf kinases.

L16 ANSWER 17 OF 21 CAPLUS COPYRIGHT 2009 ACS on STN

TI Preparation of heteroaryl-substituted diarylureas as tyrosine kinase inhibitors

AB Twenty-eight title compds. were claimed. Thus, 5-(4-aminophenoxy)benzo-1,2,5-thiadiazole (preparation given), 2-fluoro-5-trifluoromethylphenyl isocyanate, and Et3N were stirred in CH2Cl2 to give 1[4-(benzo-1,2,5-thiadiazol-5-yloxy)phenyl]-3-(2-fluoro-5-trifluoromethylphenyl)urea as the trifluoroacetate. The latter inhibited TIE-2 and RAF kinase with IC50 = 57 nM and 220 nM, resp.

L16 ANSWER 18 OF 21 CAPLUS COPYRIGHT 2009 ACS on STN

TI Preparation of heteroaryl chromenones as inhibitors of tyrosine kinases and/or Raf kinases.

GI

/ Structure 828 in file .gra /

AB Title compds. [I; R1-R3 = H, OH, OA, PhO, Ar, O2CA, SO2H, SO3A, OSO2A, SO2A, halo, CO2H, CO2A, CONH2, NHSO2A, COA, CHO, SO2NH2; R1R2 = OCH2O,

OCH2CH2O; Ar = (substituted) (unsatd.) (aromatic) mono- or binuclear heterocyclyl; A = (fluorinated) alkyl; Ar = (substituted) Ph, naphthyl, biphenyl], were prepared Thus, 1-methylimidazole in THF at -78° was treated with BuLi and then with 6-hydroxy-2-ethoxycarbonylchromen-4-one (preparation given) in THF followed by stirring for 1 h to give 6-hydroxy-2-(1-methyl-1H-imidazol-2-carbonyl)chromen-4-one. The latter inhibited Raf with IC50 >1.0 μM.

L16 ANSWER 19 OF 21 CAPLUS COPYRIGHT 2009 ACS on STN
TI Preparation of oxadiazolylchromones as modulators of tyrosine kinase signal transduction.
GI

/ Structure 829 in file .gra /

AB Title compds. [I; R = A, pyridyl, (substituted) Ph; X = H, OH, PhO, OA, O2CA, SO3H, OSO3H, OSO3A, halo, CO2H, CO2A, CONH2, NHSO2A, COA, CHO, SO2NH2, etc.; A = alkyl, fluoroalkyl; n = 1-4], were prepared Thus, 2,5-dihydroxyacetophenone and di-Et oxalate were heated 3 h at 80° in EtOH to give 6-hydroxy-2-ethoxycarbonylchromone. This was refluxed with aqueous HCl in HOAc to give 6-hydroxychromon-2-carboxylic acid. The latter in THF at -10° was treated with Et3N and iso-Bu chloroformate; after stirring for 1 h, 4-tert-butylbenzaldoxime in THF was added followed by stirring for 30 min. at room temperature and at reflux for 90 min. to give 6-hydroxy-2-[3-(4-tert-butylphenyl)-1,2,4-oxadiazol-5-yl]chromone. The latter inhibited Tie2 receptor tyrosine kinase with IC50 >10 μM.

L16 ANSWER 20 OF 21 CAPLUS COPYRIGHT 2009 ACS on STN
TI Preparation of 2-benzoylchromone derivatives as inhibitors of the tyrosine kinase
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB New compds. I [R = OH, OA, OPh, Ar, OC(:O)A, SO3H, SO3A, OSO3H, OSO3A, OSO2A, SO2A, halogen (F, Cl, I, Br), CO2H, CO2A, CONH2, NHSO2A, COA, CHO, SO2NH2; RR = OCH2O, OCH2CH2O; A = (un)branched C1-10-alkyl, C1-10-fluoroalkyl; Ar = (un)substituted Ph; X = OH; XX = OCH2O, OCH2CH2O; n = 1 - 4; m = 1 - 5], their pharmaceutically acceptable derivs., solvates and stereoisomers, are inhibitors of the tyrosine kinase and can for the treatment by tumors, to the neuroprotection and for the protection of the stress proteins of the skin is used. The procedure for the preparation of I is characterized by: (a) hydroxyacetophenones II are cyclized with AOC(:O)C(:O)OA (A = C1-6-alkyl) to chromones III ; (b) hydrolysis of III to acid IV; (c) chlorination to acid chloride V ; (d) Friedel-Crafts acylation of PhRm. Thus, 5-Hydroxy-2-(2,4-dihydroxybenzoyl)chromone (VI) was prepared from 2,6-dihydroxyacetophenone via cyclocondensation with (EtO2C)2, hydrolysis with aqueous HCl in MeCO2H, chlorination with with (COCl)2 in CH2Cl2 containing catalytic DMF, then Friedel-Crafts acylation of resorcinol in THF containing AlCl3. Several drug dosage formulations are presented.

L16 ANSWER 21 OF 21 CAPLUS COPYRIGHT 2009 ACS on STN
TI Pharmaceutical preparation containing a cyclic peptide and a chemotherapeutic agent or an angiogenesis inhibitor

AB A pharmaceutical preparation containing the integrin antagonist cyclo(Arg-Gly-Asp-D-Phe-N-methylvalyl) (I) and/or salt thereof, ≥1 chemotherapeutic agent and/or salt thereof, and/or an angiogenesis inhibitor and/or salt thereof is useful for treatment of pathol. angiogenic disorders, thrombosis, cardiac infarct, coronary heart disease, arteriosclerosis, tumors, osteoporosis, inflammations, and infections. These agents may be administered as a combined preparation, sep. but simultaneously, or sequentially. Among the chemotherapeutic agents usable in combination with I are alkylating agents, antibiotics, antimetabolites, immunomodulators, hormones, hormone antagonists, mustard gas derivs., alkaloids, matrix metalloproteinase inhibitors, and protein kinase inhibitors. Thus, in mice 8-10 wk old inoculated with Lewis lung carcinoma cells on day 0, treatment with I (30 mg/kg/day i.p. beginning on day 4) and 5-fluorouracil (30 mg/kg/day i.p. beginning on day 7) slowed tumor growth.

=> d his

(FILE 'HOME' ENTERED AT 10:31:41 ON 03 FEB 2009)

FILE 'CAPLUS, USPATFULL, BIOSIS, DISSABS' ENTERED AT 10:32:51 ON 03 FEB 2009

L1 133959 S (RAF OR TYR OR TYROSINE) (A) KINASE
L2 31230 S INHIBITOR (5A) L1
L3 22162 S L2/TI OR L2/AB
L4 96009 S L3 AND BENZOXAZOL? OR BENZIMIDAZOL?
L5 363 S L3 AND (BENZOXAZOL? OR BENZIMIDAZOL?)
L6 285 S L5 AND (AY<2005 OR PY<2005 OR PRY<2005)
L7 69 S L3 (L) (BENZOXAZOL? OR BENZIMIDAZOL?)
L8 45 S L7 AND (AY<2005 OR PY<2005 OR PRY<2005)

FILE 'STNGUIDE' ENTERED AT 10:53:01 ON 03 FEB 2009

FILE 'CAPLUS' ENTERED AT 10:59:47 ON 03 FEB 2009
E STAEHLE W/AU
L9 32 S E5
E JONCZYK A/AU
L10 151 S E3 OR E5-E6
E RAUTENBERG W/AU
L11 50 S E3 OR E5
L12 203 S L9 OR L10 OR L11
L13 42 S L3 (L) (BENZOXAZOL? OR BENZIMIDAZOL?)
L14 2 S L12 AND L13
L15 12631 S INHIBITOR (5A) L1
L16 21 S L12 AND L15

=> log
ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF
LOGOFF? (Y)/N/HOLD:y

(FILE 'HOME' ENTERED AT 10:31:41 ON 03 FEB 2009)

FILE 'CAPLUS, USPATFULL, BIOSIS, DISSABS' ENTERED AT 10:32:51 ON 03 FEB 2009
L1 133959 SEA SPE=ON ABB=ON PLU=ON (RAF OR TYR OR TYROSINE) (A) KINASE
L2 31230 SEA SPE=ON ABB=ON PLU=ON INHIBITOR (5A) L1
L3 22162 SEA SPE=ON ABB=ON PLU=ON L2/TI OR L2/AB
L4 96009 SEA SPE=ON ABB=ON PLU=ON L3 AND BENZOXAZOL? OR BENZIMIDAZOL?

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L5          363 SEA SPE=ON  ABB=ON  PLU=ON  L3 AND (BENZOXAZOL? OR BENZIMIDAZOL
                ?)
L6          285 SEA SPE=ON  ABB=ON  PLU=ON  L5 AND (AY<2005 OR PY<2005 OR
                PRY<2005)
L7           69 SEA SPE=ON  ABB=ON  PLU=ON  L3 (L) (BENZOXAZOL? OR BENZIMIDAZOL
                ?)
L8           45 SEA SPE=ON  ABB=ON  PLU=ON  L7 AND (AY<2005 OR PY<2005 OR
                PRY<2005)
                D 40-45 IBIB ABS
                D 30-39 IBIB ABS
                D 1-29 IBIB ABS

     FILE 'STNGUIDE' ENTERED AT 10:53:01 ON 03 FEB 2009

     FILE 'CAPLUS' ENTERED AT 10:59:47 ON 03 FEB 2009
                E STAEHLE W/AU
L9           32 SEA SPE=ON  ABB=ON  PLU=ON  "STAEHLE WOLFGANG"/AU
                E JONCZYK A/AU
L10         151 SEA SPE=ON  ABB=ON  PLU=ON  "JONCZYK A"/AU OR ("JONCZYK
                ALFRED"/AU OR "JONCZYK ALFRED DR"/AU)
                E RAUTENBERG W/AU
L11          50 SEA SPE=ON  ABB=ON  PLU=ON  "RAUTENBERG W"/AU OR "RAUTENBERG
                WILFRIED"/AU
L12         203 SEA SPE=ON  ABB=ON  PLU=ON  L9 OR L10 OR L11
L13          42 SEA SPE=ON  ABB=ON  PLU=ON  L3 (L) (BENZOXAZOL? OR BENZIMIDAZOL
                ?)
L14           2 SEA SPE=ON  ABB=ON  PLU=ON  L12 AND L13
L15       12631 SEA SPE=ON  ABB=ON  PLU=ON  INHIBITOR (5A) L1
L16          21 SEA SPE=ON  ABB=ON  PLU=ON  L12 AND L15
                D TI ABS 1-21
                D 15 IBIB
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